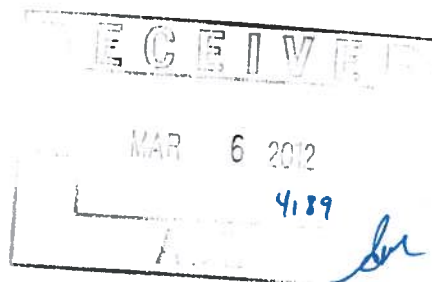


VIA HAND DELIVERY

March 6, 2012

Ana I. Vargas, Manager
Legal Support Unit
Arizona Department of Environmental Quality
1110 W. Washington Street
Phoenix, Arizona 85007



**Re: Draft Final Letter Report – Remedial Investigation
20th Street and Factor Avenue WQARF Registry Site
Contract No. EV07-0046, ADEQ Task Assignment No. 09-0010
HGL Project No. AR5013**

Dear Ms. Vargas:

On December 12, 2011, the Arizona Department of Environmental Quality (ADEQ) requested that HydroGeoLogic, Inc. (HGL) provide support in the preparation of the remedial investigation report for the 20th Street and Factor Avenue Water Quality Assurance Revolving Fund (WQARF) Registry Site (site). ADEQ tasked HGL to draft a letter report that summarizes the history of the WQARF site, including facilities located within the site boundary and information about their operations, chemical usage, waste stream, chemical releases, and regulatory involvement.

This letter report is divided into three sections. The first section provides a general overview of the 20th Street and Factor Avenue WQARF site and a summary of the industrial survey completed by HGL in 2007. The second section contains information regarding Yuma Recycling Center (YRC) and Houston International, Ltd. (Houston). YRC and Houston operated within the WQARF site boundary, and records available for these two facilities include detailed information about historical operations, chemical use, and regulatory involvement. The third section contains information regarding analytical results from groundwater monitoring and soil vapor surveys. An ownership history has not been conducted for this site and is not addressed in this letter report.

Documents used to draft this letter report have been assigned a six-character alpha code according to the source from which they were obtained and have been numbered sequentially within each source. When a document consisted of more than one page, each page rather than each document was numbered. These alpha codes and numbers follow a statement or group of statements and designate the source document(s) from which the information was extracted. The source documents and an index of the source documents can be found on the enclosed CD-ROM (Enclosure 1).

GENERAL OVERVIEW

Site Background

The 20th Street and Factor Avenue WQARF site is located approximately 0.5 mile south of 16th Street (U.S. Highway 95) and approximately 0.75 mile east of Fourth Avenue (Interstate 8 Business Loop) in Yuma, Arizona [TFDEdQP 137].

The site is located in an industrial area in the eastern portion of Yuma County, Arizona, more specifically described as the North Half, Southwest Quarter of Section 34 in Township 8 South, Range 23 West of the Gila and Salt River Baseline and Meridian [TFDEQP 173].

The contaminants of concern (COCs) at the site include tetrachloroethene (PCE), trichloroethene (TCE), and cyanide [TFDEQP 140].

Industrial Survey Report

In 2007, HGL conducted an industrial survey for the 20th Street and Factor Avenue WQARF site. See the enclosed Figure 1 for a depiction of the industrial survey and WQARF site boundaries (Enclosure 2). The industrial survey involved researching Yuma city directories, ADEQ finding aids, and U.S. Environmental Protection Agency (EPA) Internet databases to identify businesses or activities within the industrial survey boundary that may have used the COCs [TFHGLC 1-46].

HGL identified 368 businesses within the industrial survey boundary through Yuma city directory research. Additionally, HGL identified 11 general business categories that are potentially significant users/generators of the WQARF site COCs. Of the 368 businesses identified in the industrial survey boundary, 145 could be assigned into the 11 business categories listed in Table 1 [TFHGLC 12].¹

¹ Of the remaining 223 business, 196 consisted of retailers, wholesalers or other service-oriented companies that are not known to use COCs in their business operations. The business activities of 27 of the companies were not discernible [TFHGLC 12].

Table 1
General Business Categories
Potentially Significant Users or Generators of Site COCs

Business Categories	No. of Businesses
Chemical Dealers	4
Carpet Cleaners	3
Furniture & Store Fixture Builders/Finishers	10
Manufacturing Operations	11
Metal Fabrication/Welding Shops	4
Pest Control Services	1
Printers	19
Produce Growers/Shippers/Dealers	32
Vehicle Repair/Service	56
Photography Studio	4
Aircraft Repair	1
Total	145

The results of HGL's review of environmental files and databases for businesses within the industrial survey boundary are summarized in Table 2 [TFHGLC 39-41].

Table 2
File Review Results

File Type	Results	COC Use	Notes
EPA Envirofacts Multi-System Queries Database	Four facilities with Resource Conservation and Recovery Act (RCRA) identification numbers: <ul style="list-style-type: none"> • Sun Printing Company, • AA Sydcot, LLC, doing business as Sydcot, • Hughes Supply, Inc., and • Houston. 	Not Available (N/A)	Sun Printing Company, Hughes Supply, Inc., and Houston were listed as active conditionally exempt small quantity generators. Sydcot was listed as an active small quantity generator.
RCRA Notification Files and Manifests	Eight facilities with RCRA notification and manifest files. Only three facilities listed COCs on their manifests: <ul style="list-style-type: none"> • Yuma Daily Sun, • Freedom Newspapers, and • Houston. 	Yes	Manifests for the Yuma Daily Sun and Freedom Newspapers list petroleum distillates and PCE. Manifests for Houston list cyanide.

Table 2
File Review Results (Concluded)

File Type	Results	COC Use	Notes
RCRA Case Files, Compliance Log, and Archived Files	One RCRA closed case file for Houston.	N/A	File contained correspondence, sampling plans, and inspection reports.
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Database	No facilities listed within the industrial survey boundary.	N/A	None.
Preliminary Assessment (PA)/Site Inspection (SI) Files	Two PA/SI files: • Houston, and • YRC.	Yes	Houston used PCE in its operations.
Underground Storage Tank (UST) and Leaking Underground Storage Tank Files	Seven facilities listed within the industrial survey boundary.*	No	Erwin's Auto Doc Repair facility listed two waste oil USTs.
ADEQ Water Quality Database	None listed within the industrial survey boundary.	N/A	None.
Registered Drywells	None listed within the industrial survey boundary.	N/A	None.
WQARF Files	One WQARF file for Houston.	Yes	Houston used photographic chemicals and water in its operations. Wastewater contained cyanide and silver. PCE was used for cleaning from 1975 to 1991.
Hazardous Waste Box Storage, Hazardous Materials Incident Logbook, and Hazardous Waste Inspections Databases	Two hazardous waste box storage files for Houston.	Yes	Files contained inspection reports from 1990, 1993, 1994, and 2004.

*The industrial survey only identifies Erwin's Auto Doc Repair as one of the seven facilities located within the industrial survey boundary.

Environmental records identified three facilities using COCs: Yuma Daily Sun, Freedom Newspapers, and Houston. A manifest for the Yuma Daily Sun notes that 400 pounds of petroleum distillates and PCE was shipped to Safety-Kleen Systems, Inc. (Safety-Kleen) in Denton, Texas, on July 24, 2003. A manifest for Freedom Newspapers notes that 385 pounds of petroleum distillates and PCE was shipped to Safety-Kleen in Denton, Texas, on June 16, 2005. A manifest for Houston notes that 2,400 pounds of cyanide-contaminated soil was shipped from the Houston facility to Fernley, Nevada, on behalf of ADEQ on March 2, 2005 [TFHGLC 39].

SITE OPERATORS

Yuma Recycling Center

YRC is located at 620 E. 20th Street, Yuma, Arizona. YRC occupies 0.93 acres of an industrial area. The site is bordered to the north by railroad tracks, to the south by 20th Street, to the west by Denny's Tile, and to the east by a vacant lot [TFDEQP 10].

Operational History

According to a 1994 ADEQ PA, an unidentified party purchased the property in 1960 and then sold it in 1986. During this time, the site was vacant desert land. YRC acquired the property in 1986 and placed a 4-inch-thick layer of aggregate-based coarse gravel on site. There were no sewer connections available on 20th Street, so a septic tank was installed with approval from the Yuma County Health Department. Site operations in 1994 included baling of aluminum cans, cardboard, and newspaper for transport to a recycler. Nonferrous metal parts were also accepted by YRC for recycling [TFDEQP 11-12].

Chemical Use

According to a 1994 PA, operations at YRC did not generate hazardous waste. YRC did, however, accept batteries, which are considered hazardous substances [TFDEQP 11-12].

Wastestream

According to a 1994 PA, batteries were sent to RSR Battery for recycling [TFDEQP 11-12].

Chemical Releases

During a "drive-by visit," approximately 20 batteries were observed lying in a pile on bare soil. Batteries were not officially accepted by YRC until June or July of 1994. The ADEQ Solid Waste Section recommended storing batteries three high on wooden pallets, with cardboard between the layers of batteries. This method of storage was adopted at the site. No stained areas were observed during a site visit. According to the PA, since the site was vacant until 1986 and only a small amount of batteries were stored on site, it is unlikely that a release of lead or sulfuric acid to groundwater has occurred [TFDEQP 14].

Regulatory Involvement

The YRC facility was identified as a potential hazardous waste site and entered into the CERCLIS database on April 19, 1994. An August 25, 1994, remedial site assessment decision document indicates conditions at the facility did not warrant further investigation under the Comprehensive Environmental Response, Compensation, and Liability Act [TFDEQP 10, 22].

Houston International. Ltd.

Houston was located at 655 E. 20th Street, Yuma, Arizona. The property was bound to the north by 20th Street, a recycling firm and a tile distributor; to the south by an automotive body shop and vacant land; to the east by vacant land; and to the west by Factor Avenue and the Arizona Periodicals warehouse [TFDEQP 596-597].

Operational History

Houston began operations as Houston Photo Products, Inc., in 1966, running a motion picture laboratory and manufacturing photographic film and paper processing equipment for the photo industry [TFDEQP 137]. Houston Photo Products, Inc., acquired Parcel 109-64-003 from Industrial Properties, Inc., in 1969 [TFDEQP 589].² In 1988, Houston Photo Products, Inc., changed its name to Houston International, Ltd. [TFDEQP 137]. The chemicals used at the facility included standard photographic chemicals, PCE, and small amounts of other chemicals. PCE was used in a heated vapor degreaser to clean parts until 1991 [TFDEQP 577].³ By 1995, the motion picture laboratory was moved off site [TFDEQP 577].

Wastewater was treated to recover silver and disposed of in one of three ways. It was either discharged to water plants in front of the building, discharged to the soil in the southwest portion of the property via a sprinkler system and later to a sump, or discharged to a 1,000-gallon concrete underground sump on the east side of the property. When this sump was full, it was discharged to a disposal pond on the east side of the property. Wastewater from this disposal pond overflowed onto the adjacent property to the east of the site [TFDEQP 137-138].

The Houston facility contained four structures: main office building, west office building, carpenter shop, and paint shop. The main office building was located in the northeast side of the property and houses the administrative offices and photographic machine manufacturing area; this is also where the photographic developing process took place. The west office building was on the northwest side of the property. The east half of the building was used by the owner as a storage warehouse and a repair area for circuit boards associated with the photographic machine manufacturing operation. The west half of the building was leased to Dreamland Bedding as a mattress manufacturing facility. No chemicals were used in this building. The carpenter shop was located south of the main office building and was used for manufacturing wood and plastic panels for photographic machines. A small room contained a PCE wash tank, a nitric acid wash tank, and a water rinse tank. These tanks were drained annually, and the waste was spread into the soil. The paint shop is located west of the carpenter shop and was used for painting photographic machines and components [TFDEQP 597-598].

According to a review of aerial photographs from Landis Aerial Survey, the main office building and paint room were the only two structures on the property in 1966. In 1970, the west office

² HGL has not identified a lease or other documentation that would have allowed Houston to operate on the property prior to owning it.

³ The exact year when Houston stopped using PCE in its operations is unclear. Sources are not consistent, but it appears to be somewhere between 1990 and 1992 [TFDEQP 41-42, 137-138, 583, 585].

building was under construction and the carpenter shop was present. A dark stain east of the property was also noted in the aerial photograph from this year. In 1973, all four structures were complete on the property, and the dark stained area was still present east of the property. A 1980 aerial photograph shows that the dark stain east of the property remained, but no other significant changes are visible. In 1984, the dark stain was significantly smaller than in previous years. In the 1988 photographs, the stained area seen in previous photographs is no longer visible [TFDEQP 603-604].

As of 2002, the facility was occupied by Houston Fearless International (a film processing equipment manufacturer), a dance studio, and a furniture warehouse. The facility was also being used for personal storage by Mr. Houston [TFDEQP 577].⁴

Chemical Use

According to a 1999 abbreviated PA report, Houston used 275 to 300 gallons of photographic chemicals per week in 1991. By 1994, this number had dropped to 500 gallons per month. Thousands of gallons of water were used in addition to the chemicals. Wastewater from the film developing process was treated to recover silver flake. Approximately 80 to 90 pounds of silver flake were generated per year [TFDEQP 42].⁵

According to a 1994 PA questionnaire completed by Houston, between 50 and 100 gallons of PCE were used each year from 1975 until 1990. This PCE was used in the evaporative degreaser for cleaning. Chemicals were stored in drums either outside on the pavement or inside on a concrete surface [TFDEQP 585].⁶ A 1999 abbreviated PA states that PCE was used at the facility from 1975 until the early 1990s to clean stainless steel machine parts. PCE was kept in an on-site heating tank. Approximately 100 gallons of PCE were used per year until 1991 when the company stopped using PCE and switched to Industroclean [TFDEQP 42].⁷

In addition to PCE, potassium ferricyanide and sodium thiocyanide were also used during film processing and were discharged on the property. The amount of cyanide used during operations is unknown; however, on-site monitoring wells detected concentrations of cyanide above the Arizona Aquifer Water Quality Standard (AWQS) limit of 0.2 milligrams per liter (mg/L) [TFDEQP 578].

Wastestream

From 1975 until the early 1990s, Houston used PCE to clean stainless steel machine parts. In 1978, an employee drained 15 to 20 gallons from the bottom of the 50-gallon heated vapor

⁴ The source document does not include any information regarding chemical usage for Houston Fearless International. Mr. Houston's first name is not included in the source document and it is unknown if this is the same person who owned Houston. No additional information has been found for Houston Fearless International.

⁵ The type of photographic chemicals used is not identified in the source document.

⁶ The PA questionnaire does not specify which chemicals were stored in drums.

⁷ Industroclean consists of ethylene glycol monobutyl ether [TFDEQP 42].

degreaser into the wastewater sump. According to a PA questionnaire, no regulatory agencies were involved or notified and no cleanup action was taken [TFDEQP 42, 586].

In 1991, Houston was using approximately 275 to 300 gallons of photographic chemicals per week. By 1994, 500 gallons per month were being used. Wastewater generated by the film development operations was treated to recover silver flake. Treated wastewater was either discharged to water plants in front of the building, discharged to the soil in the southwest portion of the property, or discharged to a 1,000-gallon concrete underground sump on the east side of the property. When this sump was full, its contents were discharged to a disposal pond on the east side of the property. Wastewater from this disposal pond overflowed onto the adjacent property to the east of the site. Houston claimed to have stopped discharging wastewater to the ground in 1992 [TFDEQP 41-42, 137-138].⁸

According to a 1994 PA questionnaire completed by Houston, beginning in 1980 hazardous materials were transported off site by Powers & Hunt to a facility in San Diego, California. The 1994 questionnaire notes that currently hazardous materials were sent off site to Commodity Resource & Environmental, Inc. (CRE) in Mojave, California [TFDEQP 586].⁹ CRE is a silver recovery company with a facility located in Phoenix, Arizona. Their services include selling silver recovery equipment, purchasing scrap black and white film, refining silver flake, and transporting bulk photographic chemical waste. CRE is also a licensed transporter of hazardous waste and maintains a facility for treatment and disposal of photographic chemical waste [TFINET 1-5].

Chemical Release

A June 1999 PA reported three sources of contamination on the property: PCE-contaminated soil, stained soil, and the underground tank.¹⁰ In 1994, a soil vapor survey found PCE-contaminated soil near the stained soil, second building, and the 1,000-gallon underground tank.¹¹ The approximate area of the PCE-contaminated soil was 10,000 square feet. Samples collected by ADEQ in 1993 from the stained soil contained concentrations of chromium, silver, and zinc. The approximate area of the stained soil was 13,000 square feet. The underground tank collected PCE-laden wastewater and discharged it to the ground. As of 1999, wastewater was no longer generated or discharged, and the use and contents of the tank were unknown [TFDEQP 43].

⁸ Although Houston claims to have discontinued the use of PCE in 1992, a soil vapor survey conducted in 1994 detected PCE concentrations of 7.9 micrograms per liter in the wastewater. A continuing source of PCE may have been present even though PCE was no longer being used [TFDEQP 68].

⁹ The questionnaire does not specify whether the waste was designated for disposal, recycling, or sale.

¹⁰ The 20th Street and Factor Avenue WQARF Site summary available on the ADEQ website refers to the underground tank as an underground sump [TFDEQP 138].

¹¹ HGL believes that the "second building" mentioned in the PA is the main building previously described in the operational history section of this report [TFDEQP 40, 597].

Regulatory Involvement

In 1990, a release of PCE from a 1,000-gallon underground tank was reported to the ADEQ UST Section. The underground tank was a concrete holding tank and did not meet the technical definition of a UST; therefore, the incident was reported to the ADEQ Hazardous Waste Section (HWS). ADEQ HWS required that a hazardous waste determination be performed for all waste generated by Houston [TFDEQP 41].

In 1990, Foree & Vann, Inc., a contractor to Houston, completed a Phase II environmental site assessment. Results of the assessment led to the installation of three groundwater monitoring wells. Table 3 summarizes the concentrations of PCE and TCE above the AWQS standard of 5 micrograms per liter ($\mu\text{g/L}$) from 1992 to 1996 [TFDEQP 149, 162].

Table 3
Groundwater Sampling Results, Foree & Vann, Inc., 1992–1996

COCs	1992	1993	1996
PCE	20,000 $\mu\text{g/L}$	270,000 $\mu\text{g/L}$	3,000 $\mu\text{g/L}$
TCE	ND	7.8 $\mu\text{g/L}$	ND

ND = Not detected above AWQS limit

On December 1, 1992, a complaint was reported to ADEQ regarding the Houston photography laboratory. The informant stated that the facility was discharging product in a field behind the facility through an aboveground sprinkler system. The field turned green in color. Trees were planted in the field, but they immediately died and the green color returned to the surface. A strong odor present in the surrounding area was also reported. The ADEQ Office of Waste Programs conducted a hazardous waste inspection on June 24, 1993, in response to the complaint. During the investigation Herb Houston, who is identified as a facility representative on the inspection report, told ADEQ that the wastewater had been sampled and determined to be nonhazardous, but he could not provide supporting documentation. Mr. Houston also stated that ADEQ had given approval for the continual discharge of the wastewater. Again, no documentation was provided to support his claim [TFDEQP 1-4].

In 1993, ADEQ HWS inspected the facility, and in 1994 entered into a compliance order with Houston. A soil vapor survey was conducted and found elevated concentrations of PCE in the samples. TCE and 1,1,1-trichloroethane were also detected in the soil vapor samples [TFDEQP 138]. On April 19, 1994, the facility was listed in CERCLIS as a conditionally exempt generator of hazardous waste [TFDEQP 41].

In 1994, a soil vapor survey indicated elevated concentrations of PCE, TCE and 1,1,1-trichloroethane in the soil. In 2001, ADEQ also found soils contaminated with hydrogen cyanide on the site with areas that exceeded the nonresidential soil remediation levels of 35 milligrams per kilogram (mg/kg) [TFDEQP 138-139].

In March 2000, the site was placed on the WQARF Registry with a score of 31 out of 120. In 2001, ADEQ began site investigation activities at the facility [TFDEQP 138, 578].

In June 2001, additional sampling of the wastewater disposal system and groundwater monitoring wells at the site began. Sample analysis detected PCE and cyanide. Cyanide was detected in the wastewater located in the sump/septic system at concentrations of 20 mg/L [TFDEQP 578]. In October 2001, soil sampling was conducted to further characterize cyanide contamination. The highest concentration of total cyanide detected was 2,000 mg/kg, found in the disposal pond located on the east side of the property. The contamination was also deepest in this area, with contaminants detected at a depth of 7 feet. Due to overflow from the disposal pond, cyanide contamination extended approximately 175 feet east of the property and to a depth of 5 feet in this area.

In the southwest portion of the property, cyanide contamination extended to a depth of approximately 2 to 3 feet. The highest concentrations of total cyanide detected in surface samples ranged from 400 to 800 mg/kg. In February 2002, subsurface gas sampling was completed to determine if the cyanide compounds were degrading to hydrogen cyanide. Samples were taken from a depth of 2 to 3 feet, but no hydrogen cyanide was detected [TFDEQP 580].

GeoTrans, Inc. (GeoTrans) conducted groundwater testing from 2001 to 2010 at the WQARF site. Concentrations of PCE were detected as high as 600 µg/L in 2001 and at 130 µg/L by 2008. The highest concentrations of TCE were 33 µg/L in 2001 and 23 µg/L in 2008. Cyanide was detected at 12 mg/L in 2001 and 18 mg/L in 2008. In 2010, only 6 of the 22 wells sampled had concentrations of contaminants above the AWQS limits. Cyanide was not detected above the AWQS limit in any of the wells. Results from the six wells sampled in 2010 are summarized in Table 4 [TFDEQP 216-224, 233].¹²

Table 4
Groundwater Sampling Results, GeoTrans, 2010

Sampling Location	Depth (ft bgs)	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)
AWQS Limit		5	5	7
MW-8A	65.4-105.4	97	36	17
MW-8B	107-117	78	26	11
MW-8C	170-210	11	ND	ND
MW-18A	65.5-105.5	13	17	ND
MW-21B	161-201	ND	16	ND
MW-102B1	110-120	9.2	ND	ND

1,1-DCE - 1,1,1-dichloroethene ft bgs - feet below ground surface ND - Not detected above AWQS limit

¹² Historical sampling data was incomplete and did not include any information regarding the depths at which the samples were taken. Figure 3 of the GeoTrans report shows the location of each sample taken [TFDEQP 216-224, 228].

From 2003 to 2010, GeoTrans sampled between 4 and 32 wells for a soil vapor survey. In 2003, four wells were sampled, and the highest concentration of PCE was 240,000 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). In 2008, 10 wells were sampled, and the highest concentrations of PCE and TCE were 28,000 $\mu\text{g}/\text{m}^3$ and 70 $\mu\text{g}/\text{m}^3$, respectively [TFDEQP 203-204].¹³ Table 5 summarizes the highest concentration of contaminants above the EPA Residential Regional Screening Level (RSL) in 2010 [TFDEQP 203-204,229].

Table 5
Soil Vapor Sampling Results, GeoTrans, 2010

Sampling Location	Depth (ft bgs)	PCE ($\mu\text{g}/\text{m}^3$)	TCE ($\mu\text{g}/\text{m}^3$)
EPA Residential RSL		0.41	1.2
1A	19.5-20	4,500	29
1B	34.5-35	5,200	27
1C	49.-50	3,500	22
1D	64.5-65	224	ND
2B	9.5-10	25	ND
3A	4.5-5	20	ND
3B	9.5-10	24	ND
4A	4.5-5	14	ND
4B	9.5-10	14	ND
6A	4.5-5	18	ND
6B	9.5-10	55	ND
8A	2.5-5	36	ND
8B	7.5-10	35	ND
8C	17.5-20	35	ND
8D	27.5-30	16	ND
8E	37.5-40	68	13
8F	47.5-50	12	ND
8G	57.5-60	16	ND
9A	4.5-5	95	ND
9B	9.5-10	163	ND
10A	4.5-5	251	ND
10B	9.5-10	515	7

¹³ The soil vapor survey data was incomplete for 2003 to 2009 and did not include information regarding depth. Figure 3 of the GeoTrans report shows the location of each sample taken [TFDEQP 228].

Table 5
Soil Vapor Sampling Results, GeoTrans, 2010 (Concluded)

Sampling Location	Depth (ft bgs)	PCE ($\mu\text{g}/\text{m}^3$)	TCE ($\mu\text{g}/\text{m}^3$)
EPA Residential RSL		0.41	1.2
11A	4.5-5	3,100	ND
11B	9.5-10	4,500	59
12A	4.5-5	51	ND
12B	9.5-10	81	ND

ft bgs - feet below ground surface

ND - Not detected above EPA RSL limit

CONCLUSION

Records that provide information on historical site operations, chemical use, and regulatory involvement were found for only two facilities, Houston and YRC.

PCE was regularly used at the Houston facility from 1975 to the early 1990s. Houston discharged wastewater containing high concentrations of PCE at its facility. Groundwater and wastewater samples from 1993 through 2010 indicate concentrations of PCE and TCE above the AWQS of 5 $\mu\text{g}/\text{L}$, as well as concentrations of cyanide above the AWQS of 0.2 mg/L . Additionally, elevated PCE concentrations were detected during soil vapor surveys in 1994, after Houston had switched from using PCE to Industroclean.

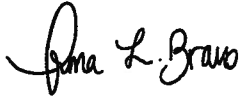
A small amount of used batteries were the only hazardous substances stored at YRC, and it is unlikely that they contributed to contamination at the site.

Regulatory records for the Yuma Daily Sun and Freedom Newspapers did not contain information on the operations of these companies. However, the Yuma Daily Sun shipped 400 pounds of petroleum distillates and PCE to Safety-Kleen in 2003. Freedom Newspapers also shipped 385 pounds of petroleum distillates and PCE to Safety-Kleen in 2005. There is no evidence of discharge from these facilities [TFHGLC 39].

Ms. Vargas
March 6, 2012
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If you have any questions about this letter report, please contact me by telephone at (602) 476-5301 or by email at ilewisbravo@hgl.com.

Sincerely,

A handwritten signature in cursive script that reads "Irma L. Bravo".

Irma Lewis Bravo
Project Manager

Enclosures (2)

cc: Chris Roman, HGL (w/ enclosures)

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ENCLOSURE 1

SOURCE DOCUMENTS AND INDEX

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ARIZ A DEPARTMENT OF ENVIRONM TAL QUALITY
OFFICE OF WASTE PROGRAMS

HAZARDOUS WASTE INSPECTION REPORT

INSPECTION DATE: June 24, 1993

COMPANY NAME: Houston Photo Lab

EPA ID NUMBER: AZD983480963

STREET ADDRESS: 655 East 20th Street

CITY/STATE/ZIP: Yuma, Arizona 85365

TELEPHONE NUMBER: (602) 782-3677

MAILING ADDRESS: Same as above

FACILITY REPRESENTATIVE(S) AND TITLE(S):

1. Herb Houston

A.D.E.Q. REPRESENTATIVE(S):

1. Laura Manley
2. Dale Anderson

OTHER PARTICIPANTS/AGENCIES:

NOTE: All regulatory citations to 40 CFR are as adopted by the Arizona Administrative Codes (AAC) R18-8-201 et seq. Any omissions in this report shall not be construed as a determination of compliance with applicable regulations.

GENERAL INFORMATION

On June 24, 1993, an inspection was conducted at the Houston Photo Lab (HPL) facility in Yuma, Arizona. The inspection was in response to complaint #C93-029 (attached). The complaint alleges that the facility is using an above ground sprinkler system to discharge an unknown product. The product is being discharged to a small field behind the facility. The complaint states that the field turned green in color and would not support any vegetation.

According to Mr. Houston, HPL is a developing company for motion picture film. The primary waste generated at this facility is wastewater from the film "washing" process. The wastewater is green in color, due to a dye additive. HPL has been discharging the wastewater to a small field directly behind the building. HPL has been using an above ground sprinkler system for discharging the wastewater. The use of the above ground system has been in affect for several years. Prior to this, HPL utilized an underground piping system. HPL currently discharges approximately several hundred gallons per day. According to Mr. Houston, the wastewater has been sampled and was listed non-hazardous, therefore non-regulated. Mr. Houston could not provide documentation to support this calssification. Mr. Houston stated that ADEQ had given approval for the continual discharge of the wastewater. This approval apparently came from a meeting with ADEQ to include Marc Lame, ADEQ's Ombudsman. Mr. Houston could not provide documentation supporting this approval. Mr. Houston stated that an Aquifer Protection Permit application had been submitted to the department and is undergoing a review.

Mr. Houston stated that HPL has investigation currently being conducted as a result of a Phase I Site Assessment Report. The Phase I Assessment was requested by the bank before a loan would be approved. Mr. Houston stated that the Phase I revealed soil and groundwater contaminated with PERC. Mr. Houston stated that the PERC contamination resulted from historical dumping that occurred at the facility. HPL has contracted with Foree & Van to perform additional investigative and remedial actions at this site. Mr. Jeff Trembly with the Remedial Investigation Hydrology Unit has been overseeing the actions taken by HPL.

TABLE OF ATTACHMENT

Location: Houston Photo Lab

Date: June 24, 1993

Attachment A **Complaint**

M
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

HAZARDOUS WASTE COMPLAINTS, INCIDENTS, REFERRALS FILE NUMBER 93-029

DATE 12/01/92 TIME 11:15 A.M. RECEIVED BY R. Noyes

INITIALED *TJN*

NAME OF SITE/OPERATOR Houston Photo Lab

EPA ID NO./GENERATOR STATUS:

ADDRESS

CITY Yuma, AZ

PHONE

X-STREETS

INFORMER'S NAME Chris Van Elk

ADDRESS

CITY

PHONE 944-8309

REFERRED BY

AGENCY

PHONE

COMPLAINT: Facility was discharging product to a field behind the facility through an above ground sprinkler system. The field turned green in color. The facility then plowed the field and installed an underground leaching system to discharge product. The facility planted trees in the field and they immediately died and the green color returned to the surface. A strong odor is present in the surrounding areas.

DISPOSITION/OTHER:

COPY TO/DATE:

REFERRED TO/DATE:

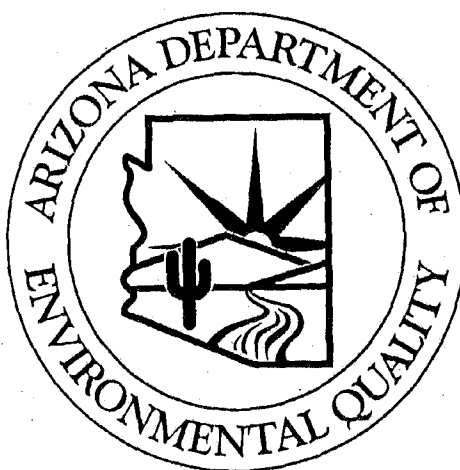
10/92

**PRELIMINARY ASSESSMENT
YUMA RECYCLING CENTER**

620 E. 20TH STREET
YUMA, ARIZONA 85364
YUMA COUNTY

EPA ID#: AZ0000124818

STATE ID#: 1251



PREPARED BY:
MARY E. HESSLER

AUGUST 25, 1994

**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE PROGRAMS DIVISION
REMEDIAL PROJECTS SECTION
PREREMEDIAL UNIT**

**PRELIMINARY ASSESSMENT
YUMA RECYCLING CENTER**

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SECTION I

PRELIMINARY ASSESSMENT

YUMA RECYCLING CENTER

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA), Region IX, under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization of 1986 (SARA) has tasked the Arizona Department of Environmental Quality (ADEQ) to conduct a Preliminary Assessment (PA) at Yuma Recycling Center (YRC), located in Yuma, Yuma County, Arizona. The purpose of the PA is to review existing information on the site and its environs to assess the threat(s), if any, posed to public health, welfare, or the environment and to determine if further investigation under CERCLA/SARA is warranted. The scope of the PA includes the review of information available from Federal, state, and local agencies, and performances of an on-site reconnaissance visit.

Using these sources of information, the site is then evaluated under EPA's Hazard Ranking System (HRS) criteria to assess the relative threat associated with actual or potential releases of hazardous substances at the site. The HRS has been adopted by the EPA to help set priorities for further evaluation and eventual remedial action at hazardous waste sites.

The HRS is the primary method of determining the site's eligibility for placement on EPA's National Priorities List (NPL). The NPL identifies sites at which EPA may conduct remedial

response actions. This report summarizes the finding of these preliminary investigative activities.

The YRC site was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) on April 19, 1994, and was assigned CERCLIS ID# AZ0000124818.(1) The major concern was that undrained batteries were observed on bare soil.(2)

1.1 Apparent Problem

The apparent problem is a pile of approximately 20 batteries on bare soil which was observed at the site.(2)

2.0 SITE DESCRIPTION

2.1 Site Location

The Yuma Recycling Center (YRC) site is located at 620 E. 20th Street, Yuma, Arizona. The geographic coordinates of the site are 32° 41' 29" N latitude, 114° 36' 41" W longitude. The U. S. Geological Survey location is Township 8 South, Range 23 West, Section 34, SE¼, SW¼, NW¼ of the Gila & Salt River Baseline & Meridian [(C-8-23)34BCD].(3) Figure 1, the Site Location Map, shows the site location.

2.2 Site Description

The YRC site occupies approximately 0.93 acres in an industrial area.(4, 5) The site is bordered to the north by the railroad tracks. North of the railroad tracks is the Olfactory Corporation. The site is bordered to the east by a vacant lot and to the west by Denny's Tile. The site owner believes that the vacant lot east of the site may be part of a railroad yard. The

site is bordered to the south by 20th Street, and south of 20th Street is a business with no sign.(4)

The site is not paved, but is covered with a layer of aggregate-based coarse (ABC) gravel. There is one office building onsite. There is a covered area north of the building, and a storage building north of the covered area. There is a baler east of the buildings. Several bales of newspaper, aluminum cans, and cardboard were observed onsite. A pile of approximately 20 batteries was observed during the drive-by inspection, but no batteries were observed during the onsite visit. Pallets of used batteries are presently stored onsite. Nonferrous metal parts are accepted for recycling. They are stored in an empty drum in the covered area.(2, 4, 6) Figure 2, the Site Diagram, shows the site layout.

2.3 Operational History

The site has been privately owned since 1960 or before. One private owner acquired the property in 1960 and sold it in 1986. The site was vacant desert land in 1986, so it is believed that there were no onsite operations before 1986.

The present owner acquired the property in 1986. In 1986, the site owner placed a 4-inch thick layer of aggregate-based coarse gravel onsite. Sewer connection is not available on 20th Street. Approval for septic tank installation was received from the Yuma County Health Department, and a septic tank was installed. The septic tank received domestic sewage. The present owner operates the YRC business onsite.(4, 5, 7)

The site was a vacant lot until 1986. A photograph taken by the property owner in 1986 indicated that the site was vacant desert land.(See Appendix C) However, the surrounding businesses were already in operation in 1986, as indicated in the photograph. The present site

operations include baling of aluminum cans, cardboard, and newspaper for transport to a recycler. YRC also accepts nonferrous metal parts for recycling. These operations do not generate hazardous substances. However, used batteries, which are hazardous substances, are being accepted for recycling. It is unknown where the used batteries are being stored. Used batteries are sent to RSR Battery for recycling.(2, 4, 6)

2.4 Regulatory Involvement

Federal

There has been no regulatory involvement directly with the EPA.

State

The YRC site is not located within the boundaries of any Water Quality Assurance Revolving Fund (WQARF) Project Areas.

The ADEQ Hazardous Waste Section regulates companies pursuant to the resource Conservation and Recovery Act (RCRA). The site is not listed as a generator, or transport, storage, or disposal facility in the RCRA database (TSD). There is not a history of RCRA inspections or compliance actions involving the YRC site.(8, 9, 10)

The ADEQ Emergency Response Unit documents chemical spills and incidents from 1984 - 1992 in a series of annual hazardous materials incident logbooks. There have not been any incidents involving the YRC site.(11)

There are no onsite drywells registered with the ADEQ Industrial/Drywell Unit. No drywells were observed during the on-site visit.(4, 12)

There are no ADEQ Underground Storage Tanks (USTs) Section records for the site. No USTs were observed during the onsite visit.(4, 13, 14)

The ADEQ Aquifer Protection Permit (APP) Program regulates discharges to the surface or subsurface, such as surface impoundments and large septic systems, which may affect groundwater. Prior to the APP Program, a facility would have had to file a Notice of Disposal (NOD). The Water Pollution Compliance Unit (WPCU) Database tracks APPs and NODs. This database also tracks if any facility has obtained a National Pollutant Discharge and Elimination System (NPDES) permit. According to this database the YRC site has never filed a NOD nor an APP application, and does not have a NPDES permit.(15) No activities that would require a permit were observed during the onsite visit.(4)

The ADEQ Air Quality Division maintains records of air permits issued in Yuma County. A permit usually is indicative of activities associated with hazardous materials used on site. There are no air permits regarding the YRC site.(16)

Local

The City of Yuma Fire Department has no records of releases from the Yuma Recycling Center site.(17)

The Yuma County Health Department (YCHD) issued a construction permit for a septic tank at the YRC site. Later, the YCHD gave final approval for the septic tank.(7)

3.0 HRS FACTORS

3.1 Sources of Contamination

The following potential sources have been identified at the site:

- Undrained Batteries

There was a pile of approximately 20 batteries on bare soil observed during the drive-by visit. YRC did not officially accept batteries until June or July of 1994. The ADEQ Solid Waste Section recommended that batteries be stored three high on wooden pallets, with cardboard between the layers of batteries, and this practice has been adopted at the site. As of July, 1994, there were two pallets of batteries onsite. These batteries may contain lead or sulfuric acid, and both of these may be considered to be hazardous substances. Batteries are sent to RSR Battery for recycling. No stained areas were observed during the onsite visit.(2, 4, 6)

3.2 Groundwater Pathway

Depth to groundwater ranges from 58 to 75 feet in wells within ¼ mile of the YRC site, and the unsaturated zone is comprised primarily of sands. Groundwater flow beneath the site is to the northwest.(18, 19, 20)

The nearest drinking water well to the site is a domestic well located 1 mile from the site. There are 315 domestic wells within a 4-mile radius of the site. There is one public supply well for the town of Winterhaven, California, between 3 and 4 miles from the site. This well supplies drinking water to 202 service connections. Altogether, these wells supply drinking water to approximately 1,300 people.(20, 21, 22, 23, 24)

Groundwater occurs at 58 feet below the site, and the unsaturated zone is comprised primarily of sands. Groundwater withdrawn within 4 miles of the site supplies drinking water to approximately 1,300 people. Because the site was a vacant lot until 1986 and because only a small quantity of batteries are stored onsite, it is unlikely that a release of lead or sulfuric acid to groundwater has occurred.(18, 19, 20, 21, 22, 23, 24)

3.3 Surface Water Pathway

The nearest surface water is the B Canal, located approximately ½ mile uphill of the site. The nearest downhill surface water bodies are the South Gila Valley Main Canal, located approximately 1½ miles east of the site, and the Colorado River located more than 2 miles north of the site. The South Gila Valley Canal is bermed to prevent surface water runoff from entering it.(3) The site is located in the 100-500 year floodplain.(25) There are no drinking water intakes, wetlands, or fisheries located along the canals. Instead, canal water is used for irrigation.(26) A small number of sensitive environments are located in the Yuma area.(27, 28)

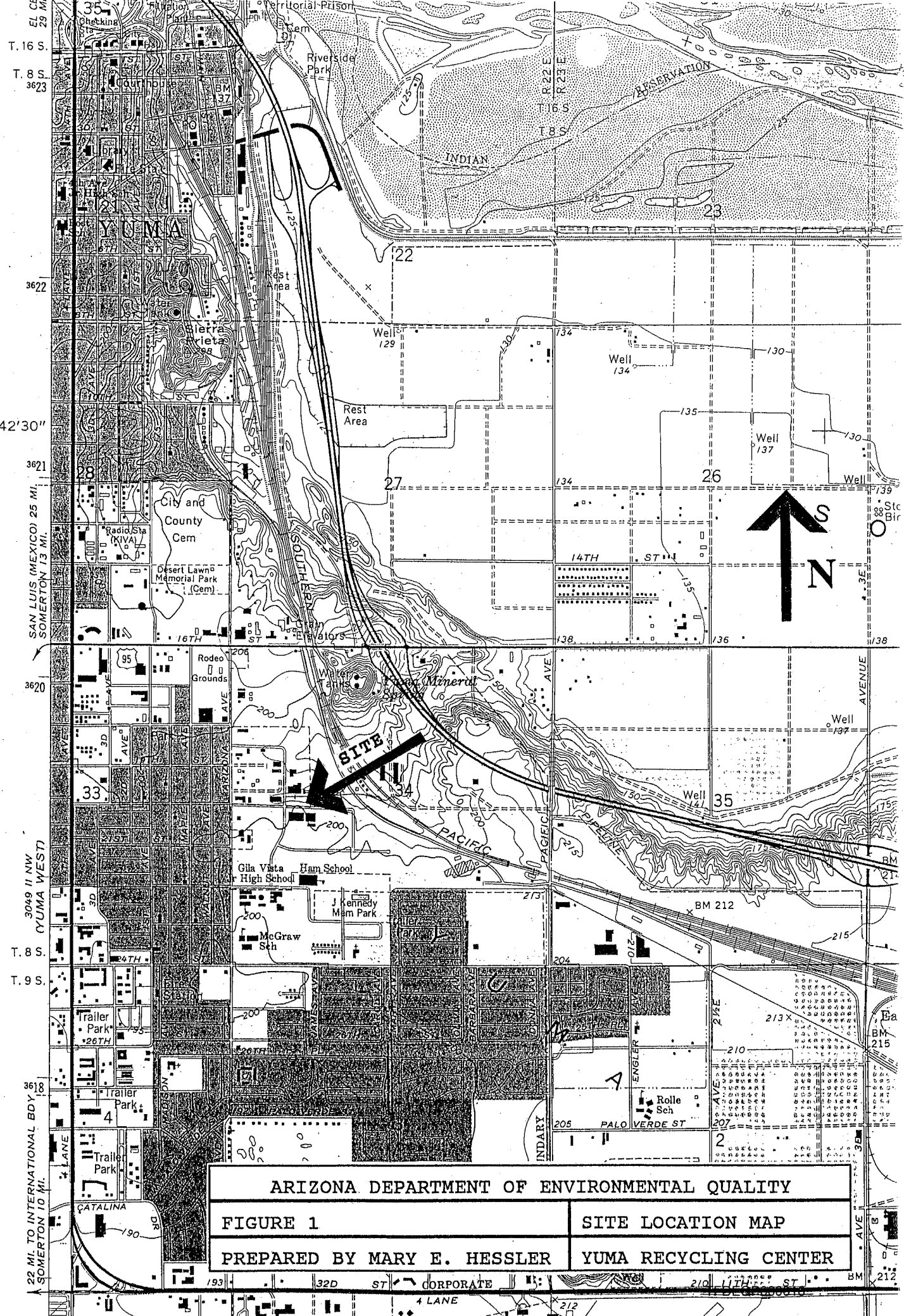
3.4 Soil Exposure and Air Pathways

3.4.1 Physical Characteristics

The site is a gravel-covered lot in an industrial area. There are two buildings and a covered area onsite. The covered area has a concrete floor. There is also some concrete around the baler. This site is fenced to prevent access.(4)

3.4.2 Soil and Air Targets

In the Yuma area, there are habitats for several special status species. The Yuma Clapper Rail, a federally listed endangered species, and the Northern Mexican Garter Snake, a federal candidate species, have been documented as occurring in the vicinity of the site. The habitat for the Yuma Clapper Rail is along streams and marshes. The habitat for the Northern Mexican Garter Snake is in permanent marshes and streams. The Flat-Tailed Horned Lizard, a federal candidate species, is not documented as occurring in the vicinity of the site. However, its habitat is in the sandy desert south and east of Yuma and west of the Gila and Tinajas Altas



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

FIGURE 1

SITE LOCATION MAP

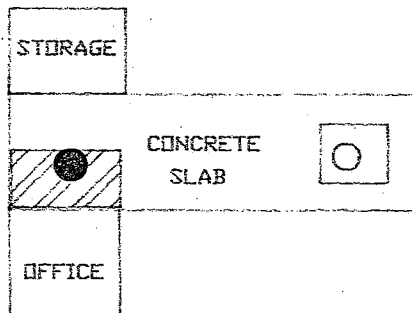
PREPARED BY MARY E. HESSLER

YUMA RECYCLING CENTER

THE OLFACTORY CORPORATION

SOUTHERN PACIFIC RAILROAD TRACKS

DENNY'S
TILE



VACANT
LAND

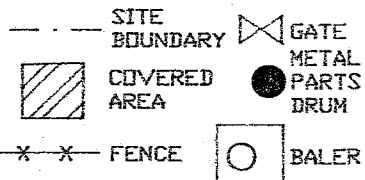
UNPAVED STORAGE AREA

ALUMINUM CANS, CARDBOARD, & NEWSPAPER

20TH STREET

BUSINESS WITH NO SIGN

LEGEND



NOT TO SCALE

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIGURE 2: SITE DIAGRAM YUMA RECYCLING CENTER
PREPARED BY MARY E. HESSLER

Mountains. The site is located on the Rositas Sand, a sandy soil, in an industrial area.(27, 28, 29)

There are no onsite residents. There are 3 workers onsite. The dimensions of the site are 275 feet by 147 feet, so all workers would be within 200 feet of the battery pallets. The nearest schools to the site are the Ham School and the Gila Vista Junior High School, both located approximately ¼ mile south of the site. The nearest residential area is approximately ¼ mile west of the site. The Yuma Rodeo Grounds are located approximately ½ mile northwest of the site. The residents within 4 miles of the site are summarized in Table 1.(3, 4, 5, 29)

Table 1: Population within 4 miles of the Yuma Recycling Center Site	
Distance	Population
0 - ¼ mile	639
¼ - ½ mile	2,131
½ - 1 mile	8,483
1 - 2 miles	15,942
2 - 3 miles	20,704
3 - 4 miles	21,997

3.4.3 Soil and Air Pathway Conclusions

There are a few small concrete-covered areas onsite; the remainder of the site is covered with gravel. There are no residents or schools onsite. There are 3 workers onsite. The site may be considered to be habitat for the Flat-Tailed Horned Lizard, a federal candidate species.
(4, 5, 27, 28, 29)

4.0 EMERGENCY RESPONSE CONSIDERATIONS

The National Contingency Plan [40 CFR 300.415(b)(2)] authorizes the Environmental Protection Agency to consider emergency response actions at those sites which pose an imminent threat to human health or the environment. For the following reasons a referral to Region's IX's Emergency Response Section does not appear to be necessary:

- No indication of a release of hazardous substances into the environment

5.0 SUMMARY

The Yuma Recycling Center (YRC) site is located at 620 E. 20th Street, Yuma, Arizona. The geographic coordinates of the site are 32° 41' 29" N latitude, 114° 36' 41" W longitude. The U. S. Geological Survey location is Township 8 South, Range 23 West, Section 34, SE¼, SW¼, NW¼ of the Gila & Salt River Baseline & Meridian [(C-8-23)34BCD].(3)

The site occupies approximately 0.93 acres in an industrial area. The site is not paved, but is covered with a layer of aggregate-based coarse (ABC) gravel. There is one office building onsite. There is also a covered area and a baler onsite. Several bales of newspaper, aluminum cans, and cardboard were observed onsite. A pile of approximately 20 batteries was observed during the drive-by inspection. Batteries are presently stored on pallets.(2, 4, 6)

The site was a vacant lot until 1986. From 1986 until present, the site was operated as a recycling center where aluminum cans, cardboard, and newspaper are collected, baled, and shipped to a recycler.(4) YRC installed a septic tank for domestic sewage at the site, under a construction permit issued by the Yuma County Health Department. There has been no other regulatory involvement at this site.(7, 9, 10, 11, 12, 13, 14, 15, 16, 17)

Groundwater occurs at 58 feet below the site, and the unsaturated zone is comprised primarily of sands. Groundwater withdrawn within 4 miles of the site supplies drinking water to approximately 1,300 people. Because the site was a vacant lot until 1986 and because only a small quantity of batteries are stored onsite, it is unlikely that a release of lead or sulfuric acid to groundwater has occurred.(18, 19, 20, 21, 22, 23, 24)

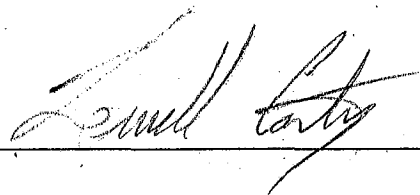
The nearest surface water body is the B Canal, located approximately ½ mile uphill of the site. The other nearby surface water bodies are bermed to prevent runoff from entering them. There are no drinking water intakes or fisheries associated with nearby surface water; it is used for irrigation. There are a few sensitive environments located in the vicinity of the nearby surface water bodies.(3, 26, 27, 28)

No soil or air samples have been taken at the site. The gravel-covered site is surrounded by a fence. There are 3 workers onsite. There are no residents or schools directly onsite. However, some special status species have been documented as occurring in the vicinity of the site.(3, 4, 5, 27, 28)

The pertinent HRS factors for this site are:

- Small hazardous waste quantity
- No observed staining
- No onsite residences or schools

6.0 ADEQ MANAGEMENT REVIEW/CONCURRENCE:



8-30-94

Lowell Carty, Unit Manager,

Date

OWP, Pre-Remedial Unit

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IX

Site Name: Yuma Recycling Center EPA ID#: AZ000124818

Alias Site Names: _____

City: Yuma County or Parish: Yuma State: AZ

Refer to Report Dated: August 25, 1994 Report type: Preliminary Assessment

Report developed by: Arizona Department of Environmental Quality

DECISION:

☒ 1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:

☒ 1a. Site does not qualify for further remedial site assessment under CERCLA (Site Evaluation Accomplished - SEA)

☐ 1b. Site may qualify for further action, but is deferred to:

☐ RCRA
☐ NRC

☐ 2. Further Assessment Needed Under CERCLA:

2a. (optional) Priority: ☐ Higher ☐ Lower

2b. Activity Type:

☐ PA
☐ SI

☐ ESI
☐ HRS evaluation

☐ Other: _____

DISCUSSION/RATIONALE: Conditions at the site do not warrant further evaluation under CERCLA

Report Reviewed,
Approved, and Site
Decision Made by: _____

Signature: Carolyn J. Douglas Date: 9/1/95

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

Arizona Department of Environmental Quality
3033 North Central Avenue
Phoenix, AZ 850012

OBSERVATIONS MADE BY:

DATE: 6/9/94

Mary E. Hessler, Environmental Health Specialist II
Linda Burgess, Environmental Program Specialist

FACILITY REPRESENTATIVE and TITLE:

Larry Craig, Owner

SITE:

Yuma Recycling Center

EPA ID: AZ0000124818

STATE ID: 1251

INFORMATION RECEIVED:

The site was a vacant lot in an industrial area when Mr. Craig bought the land in 1986. The site was covered with 4 inches of aggregate-based coarse gravel. This area may have been developed since the 1930s.

The business is recycling of aluminum cans, cardboard, and nonferrous metals. Aluminum cans and cardboard are baled and sold. Nonferrous metal parts are collected in drums and sold. Occasionally, newspaper is baled and sold. This facility used to accept batteries, but no longer accepts them. However, some customers leave batteries onsite. There were no batteries onsite at the time of the visit.

No wells, drywells, surface impoundments, pits, sumps, above ground storage tanks, landfills, used oil, or chemicals were observed onsite. No staining was observed onsite. However, a black stain was observed along the railroad tracks immediately north of the site and in the railroad yard east of the site. There is one septic tank that receives sewage generated onsite. The septic tank was installed in 1986. Sewer connection is not available along 20th Street.

The site is bordered to the north by the railroad tracks and the Olfactory Corporation north of the railroad tracks. It is bordered to the south by 20th Street, and a business with no name south of 20th Street. It is bordered to the east by vacant land which may be part of a railroad yard, and to the west by Denny's Tile Company.

DRAFT

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY ASSURANCE REVOLVING FUND

REVISED ELIGIBILITY AND EVALUATION FORM

OCTOBER 2, 1996

EMERGENCY ACTION INFORMATION

SITE NAME: Houston InternationalEMERGENCY: YES X NODESCRIPTION: Known release of PCE-contaminated wastewater to the ground; process water, which contains PCE, is routinely discharged to the ground; PCE is present in onsite monitoring wells.

FACILITY INFORMATION

SITE NAME: Houston InternationalSITE ADDRESS: 655 E. 20th Street, Yuma, AZ 85365SITE CONTACT: Herb HoustonADDRESS: _____
_____COUNTY: Yuma

LAT/LONG: _____

OWNER: Houston InternationalOPERATOR: Same as OwnerADDRESS: P. O. Box 5269

ADDRESS: _____

Yuma, AZ 85366

SCORING INFORMATION

A. RELEASE EVENT (10 pts)	<u>7</u>
B. SITE AND CONTAMINANT CHARACTERISTICS (30 pts)	<u>22</u>
C. HUMAN EXPOSURE ROUTES (65 pts)	<u>0</u>
D. ENVIRONMENTAL FACTORS (15 pts)	<u>6</u>

TOTAL SCORE

35

NOTE: GUIDANCE WILL BE DEVELOPED FOR COMPLETING THIS FORM

Draft Revised Eligibility and Evaluation Form
 October 2, 1996
 Page 2 of 15

I. SCORING SUMMARY

A. RELEASE EVENT (10 pts)*			<u>7</u>
1. SOIL (3 pts)		<u>3</u>	
2. GROUNDWATER (4 pts)		<u>4</u>	
3. SURFACE WATER (3 pts)		<u>0</u>	
B. SITE AND CONTAMINANT CHARACTERISTICS (30 pts)			<u>22</u>
1. CONTAMINANT SPECIFIC (15 pts)		<u>13</u>	
a. Contaminant Hazard (5 pts)		<u>4</u>	
b. Extent of Contamination (4 pts)		<u>4</u>	
c. Mobility (3 pts)		<u>3</u>	
d. Persistence (2 pts)		<u>2</u>	
e. Bioaccumulation (1 pt)		<u>0</u>	
2. SITE SPECIFIC (15 pts)			<u>9</u>
a. Groundwater (10 pts)		<u>9</u>	
i. DRASTIC Maps (5 pts)	<u>4</u>		
ii. Other Factors (5 pts)	<u>5</u>		
b. Surface Water (5 pts)		<u>0</u>	
i. Slope/Distance (3 pts)	<u>0</u>		
ii. Flood Frequency (1 pt)	<u>0</u>		
iii. Groundwater Recharge (1 pt)	<u>0</u>		
C. HUMAN EXPOSURE ROUTES (65 pts)			<u>0</u>
1. GROUNDWATER (30 pts)		<u>0</u>	
a. Drinking Water Wells Affected (20 pts)	<u>0</u>		
i. Actual - Population (10 pts)	<u>0</u>		
ii. Actual - Standards (5 pts)	<u>0</u>		
iii. Potential - Population (5 pts)	<u>0</u>		
b. Impacted Production Wells (5 pts)	<u>0</u>		
c. Primary Source of Drinking Water/ No Alternative Water Supply (5 pts)	<u>0</u>		
2. SURFACE WATER (20 pts)		<u>0</u>	
a. Population Affected (15 pts)	<u>0</u>		
i. Actual - Population (7 pts)	<u>0</u>		
ii. Actual - Standards (5 pts)	<u>0</u>		
iii. Potential - Population (3 pts)	<u>0</u>		
b. Uses of Surface Water (5 pts)	<u>0</u>		
3. SOIL (15 pts)		<u>0</u>	
a. Population (5 pts)	<u>0</u>		
b. Accessibility (5 pts)	<u>0</u>		
c. Sensitive Receptors (5 pts)	<u>0</u>		
D. ENVIRONMENTAL FACTORS (15 pts)			<u>6</u>
1. ECOLOGICAL FACTORS (9 pts)		<u>6</u>	
2. RECREATIONAL USES (3 pts)		<u>0</u>	
3. CULTURAL RESOURCES (3 pts)		<u>0</u>	
*Potential total points			

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A. RELEASE EVENT (10 pts)7

If contaminants are present in the groundwater, surface water, or soil, score a known release to the appropriate media. If there is no release to groundwater, surface water, or soil, the remainder of the form should not be completed.

1. SOIL (3 pts)

Please use the following table:

Type of Release	Soil Score
Known	3
Unknown	1
None	0

3 Total Soil Score (A.1.)

2. GROUNDWATER (4 pts)

Type of Release	Groundwater Score
Known	4
Unknown	2
None	0

4 Total Groundwater Score (A.2.)

3. SURFACE WATER (3 pts)

Type of Release	Surface Water Score
Known	3
Unknown	1
None	0

0 Total Surface Water Score (A.3.)

7 Total Release Event Score (A.1. + A.2. + A.3.)

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B. SITE AND CONTAMINANT CHARACTERISTICS (30 pts)

1. CONTAMINANT SPECIFIC (15 pts)

a. Contaminant Hazard

4

Contaminant hazard is the ratio (R) of the contaminant concentration to the benchmark for the substance. For groundwater:

$$R = C/\text{Drinking Water HBGL}$$

For Surface Water:

$$R = C/\text{Drinking Water HBGL}$$

For Soil:

$$R = C/\text{Residential HBGL}$$

Determine a score for each of the three media as follows: First, determine the highest possible value of R for each substance; then add the R values together. Then add together the R values for the three media (groundwater, surface water, and soil). Finally, choose the highest score from the following table:

<u>R</u>	<u>Score</u>
R < 1	0
1 < R < 10	1
10 < R < 100	2
100 < R < 1,000	3
1,000 < R < 10,000	4
10,000 < R	5

b. Extent of Contamination

4

What is the extent of release of the hazardous substance? Use the quantity that yields the highest score. Please use the following table:

	<u>Criteria</u>			<u>Score</u>
Volume of Soil (cu. yds.)	Ground-water* (wells)	Rivers/Streams (miles)	Lakes (ac. of surface)	
> 1,000	> 15	> 1.0	> 100	4
101 - 1,000	10 - 15	0.5 - 1.0	26 - 100	3
10 - 100	5 - 9	0.2 - 0.5	5 - 25	2
< 10	1 - 4	< 0.2	< 5	1
Unknown	Unknown	Unknown	Unknown	0

*Production wells only

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c. Mobility

3

The Groundwater Protection Levels (GPLs) are used as a measure of mobility, and onsite soil concentrations © will be compared to the GPL. If site-specific data is available, then the GPL will be calculated using the ADEQ model. If site-specific data is not available, then the minimum GPL will be used. Choose the highest score from the following table:

<u>Criteria</u>	<u>Score</u>
Groundwater Contamination at the Site	3
C > Site Specific GPL	2
C > Minimum GPL	1
C < Minimum GPL	0
No GPL Available	0

d. Persistence

2

Persistence is determined by the type of contaminant. Please choose the highest score from the following table:

<u>Criteria</u>	<u>Score</u>
Metals, Polycyclic Compounds, and Halogenated Hydrocarbons	2
Straight Chain Hydrocarbons, Substituted Ring Compounds, and Other Ring Compounds	1
Easily Biodegradable Compounds	0

e. Bioaccumulation

0

Look up the Food Chain Bioaccumulation value in the Superfund Chemical Data Matrix (SCDM). Please use the following table:

<u>Criteria</u>	<u>Score</u>
Bioaccumulation Value > 50	1
Bioaccumulation Value ≤ 50	0

13

Total Contaminant Specific Score (B.1.)
 (B.1.a + B.1.b. + B.1.c. + B.1.d. + B.1.e.)

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2. SITE SPECIFIC (15 pts)

a. Groundwater (10 pts)

i. DRASTIC Maps

4

The DRASTIC score will be determined from the county DRASTIC map. If pesticides are of concern at the site, use the Pesticide DRASTIC map; otherwise, use the General DRASTIC map. If no DRASTIC map is available, the attached instructions will be used to generate a pseudo-DRASTIC score. The score will be evaluated according to the following table:

<u>Criteria</u>	<u>Score</u>
200 ≤ DRASTIC Score	5
160 ≤ DRASTIC Score ≤ 199	4
120 ≤ DRASTIC Score ≤ 159	3
80 ≤ DRASTIC Score ≤ 119	2
DRASTIC Score ≤ 79	1

ii. Other Factors

5

Other factors include depth from the bottom of contamination to groundwater and the groundwater to surface water flow. Please choose the highest score from the following table:

<u>Criteria</u>		<u>Score</u>
Depth from Contamination to Groundwater (feet)	0	5
	1- 25	4
	26-100	3
	101-300	2
	>300	1
Potential for Groundwater to Reach Surface Water	Groundwater Discharging to Surface Water	2
	Groundwater Wells Pumped to Surface Water	1

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b. Surface Water (5 pts)

i. Slope/Distance

0

Determine the average slope between the site and surface water, and determine the distance to the nearest surface water. Use the following table to determine the slope/distance value:

Slope, %	Distance in Feet			
	0-100	101-500	501-1,000	>1,000
0 - 3	3	1	1	0
3 - 5	3	2	1	1
5 - 7	3	3	2	1
> 7	3	3	3	1

ii. Flood Frequency

0

Score 1 point if the site is located within the 100-year floodplain.

iii. Groundwater Recharge

0

Score 1 point if the site is located in an area of active groundwater recharge.

9 Total Site Specific Score (B.2.)
 (B.2.a.i. + B.2.a.ii. + B.2.b.i. + B.2.b.ii. + B.2.b.iii.)

22 Total Site and Contaminant Characteristics Score
 (B.1 + B.2)

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C. HUMAN EXPOSURE ROUTES (65 pts)

1. GROUNDWATER (30 pts)

If there is no release or threat of release to groundwater, do not complete this section (I.C.1.).

a. Drinking Water Wells Affected

i. Actual Contamination - Population 0

This will be evaluated if any contamination has been detected in drinking water wells. Please choose the highest score from the following table:

Population Served by Groundwater: Actual Contamination Choose the Highest Score	
Population served by groundwater	Score
0	0
1- 25	4
25- 999	6
1,000-4,999	8
≥5,000	10

ii. Actual Contamination - Standards 0
 Score 5 points if any contamination has been detected in drinking water wells at concentrations exceeding the Maximum Contaminant Levels (MCLs).

iii. Potential Contamination - Population 0
 This will be evaluated if (1) contamination has not impacted any drinking water wells, but may impact them in the future or (2) contamination has impacted drinking water wells, and it may spread to other drinking water wells. Choose the highest score from the following table:

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Population Served by Groundwater: Potential Contamination Choose the Highest Score				
Population Served	Distance Down gradient from Contamination			
	0- $\frac{1}{4}$ Mile	$\frac{1}{4}$ -1 Mile	1-4 Miles	>4 Miles
0	0	0	0	0
1 - 25	3	2	1	0
25 - 5,000	4	2	1	0
$\geq 5,000$	5	3	1	0

b. Impacted Production Wells 0
 Score 5 points if contamination has been detected in any production wells, including wells closed due to contamination.

c. Primary Source of Drinking Water/
 No Alternative Drinking Water Supply 0
 Score 5 points for sites where groundwater is the primary source of drinking water or where no alternative drinking water supply is available.

0 Total Groundwater Score (C.1.)
 (C.1.a.i. + C.1.a.ii. + C.1.b. + C.1.c.)

2. SURFACE WATER (15 pts)
 If there is no release or threat of release to surface water, do not complete this section (I.C.2.).

a. Drinking Water Intakes Affected
 i. Actual Contamination - Population 0
 This will be evaluated if contamination has impacted drinking water intakes. Please choose the highest score from the following table:

*The End Use Subcommittee is presently developing end use water quality standards. After these standards are developed, the Site Prioritization Subcommittee may recommend that 5 additional points be made available for impacted wells in excess of the end use water quality standards. These 5 points are not presently part of the model.

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Population Served by Surface Water: Actual Contamination Choose the Highest Score	
Population served by surface water	Score
0	0
1- 25	3
25- 999	5
1,000-4,999	6
≥5,000	7

- ii. Actual Contamination - Standards 0
 Score 5 points if any contaminants have been detected at the drinking water intakes at concentrations exceeding Maximum Contaminant Levels (MCLs).
- iii. Potential Contamination - Population 0
 This will be evaluated if (1) contamination has not impacted any drinking water intakes, but may impact them in the future or (2) contamination has impacted drinking water intakes and it may spread to other drinking water intakes.

Population Served by Surface Water: Potential Contamination Choose the Highest Score			
Population Served	Distance Downgradient from Contamination		
	0 - 1 Mile	1 - 15 Miles	> 15 Miles
0	0	0	0
1 - 25	2	1	0
25 - 5,000	2	1	0
≥ 5,000	3	1	0

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- b. Uses of Surface Water 0
 Please choose the highest score from the following table:

<u>Criteria</u>	<u>Score</u>
Drinking water or full body contact	5
Aquatic and wildlife/warm or cold water fishery or incidental human contact	4
Agriculture or livestock watering	2
Other uses	1
Not Applicable	0

0 Total Surface Water Score (C.2.)
 (C.2.a.i. + C.2.a.ii. + C.2.b.)

3. SOIL (15 pts)

If there is no release to soil, do not complete this section (I.C.3.). If the contaminant concentration is below the Arizona Human Health-Based Guidance Level (HBGL), score 0 for this section. If the contaminant is not present in the upper 2 feet of soil, score 0 for this section.

- a. Population Affected 0
 Please choose the highest score from the following table:

Distance from Site	Population		
	1-100	100-500	>500
0 - ½ mile	3	4	5
½ - 1 mile	0	1	2

- b. Sensitive Receptors 0
 Sensitive receptors include schools, day care, hospitals, and nursing homes. Choose the highest score from the following table:

<u>Criteria</u>	<u>Score</u>
Sensitive Receptors Onsite	5
Adjacent to the Site	4
Within ¼ Mile	3
> ¼ Mile	0

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c. Accessibility

0

If the contaminant concentration exceeds the HBGL and is present in the upper 2 feet of soil, then choose the highest score from the following table:

<u>Criteria</u>	<u>Score</u>
No Fence or Paving	5
Non-Maintained Fence or Paving	3
Maintained Fence or Paving	1
Maintained Fence and VEMUR	0

0

Total Soil Option 1 Score (C.3.)
(C.3.a. + C.3.b. + C.3.c.)

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D. ENVIRONMENTAL FACTORS (15 pts)

1. ECOLOGICAL (9 pts)

6

Evaluate ecological factors for conditions onsite.
Choose the highest score from the table on the next
page.

2. RECREATIONAL (3 pts)

0

Score 3 points if the site is used for public
recreation.

3. CULTURAL RESOURCES (3 pts)

0

Score 3 points if any of the following are present
onsite:

Historical Sites

Burial Grounds

Archaeological Sites

Impacts to other States or Indian Tribal Lands

6

Total Environmental Factors Score (D.1.+ D.2. + D.3.)

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Ecological Factor	Score
Critical habitat ^a for Federal or State designated endangered species Critical areas identified under the Clean Lakes Program ^b National or State Park National or State Monument Designated Federal Wilderness area National Lakeshore Recreational Area	9
Special status species ^c documented as occurring in the vicinity of the site National Preserve National Forest National or State Wildlife Refuge Federal land designated for protection of natural ecosystems Administratively proposed Federal Wilderness Area Spawning areas critical ^d for the maintenance of fish/shellfish species within rivers or lakes Migratory pathways and feeding areas critical for maintenance of anadromous fish species within river reaches or areas in lakes in which the fish spend extended periods of time Terrestrial areas utilized for breeding by large or dense aggregations of animals National river reach designated as Recreational	6
Federal category 1 or category 2 candidate species or State candidate species documented as occurring in the vicinity of the site Federal or State designated Scenic or Wild River State land designated for wildlife or game management State designated Natural Areas Particular areas, relatively small in size, important to maintenance of unique biotic communities	3
State designated areas for protection or maintenance of aquatic life ^e	1

Notes:

^aCritical habitat as defined in 50 CFR 424.02

^bClean Lakes Program critical areas (subareas within lakes, or in some cases entire small lakes) identified by State clean Lake Plans as critical habitat (Section 314 of Clean Water Act, as amended)

^cFederal-listed endangered or threatened species, Federal-proposed endangered or threatened species, State-listed endangered or threatened species

^dLimit to areas described as being used for intense or concentrated spawning by a given species.

^eAreas designated under Section 305(a) of Clean Water Act, as amended.

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II. SOCIAL/ECONOMIC FACTORS

Please attach a narrative regarding social/economic factors. The following factors should be considered:

- Responsible Parties
- Diminution of Property Value
- Brownfields Development
- Environmental Justice
- Remediation Feasibility
- Cost Effectiveness and No Action Cost
- Possible End Uses (Probability of Restoration)
- Loss of Business
- Loss of Resources
- Previous Agreements
- Already Initiated Remediation (Ongoing Remediation)
- Time/Schedule for Remediation
- California Project Management Issues
- Data Availability
- Data Confidence
- Other Factors

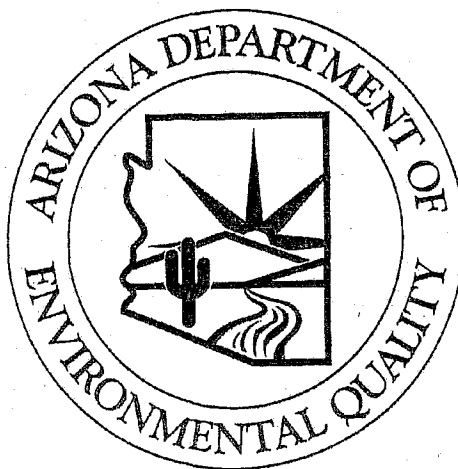
ABBREVIATED PRELIMINARY ASSESSMENT REPORT

HOUSTON INTERNATIONAL

655 E. 20TH STREET
YUMA, ARIZONA 85365
YUMA COUNTY

EPA ID#: AZD983480963

STATE ID#: 1253



PREPARED BY:
MARY E. HESSLER AND SCOTT D. GOODWIN

JUNE 8, 1999

**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE PROGRAMS DIVISION
SUPERFUND PROGRAMS SECTION
SITE ASSESSMENT UNIT**

PRELIMINARY ASSESSMENT

HOUSTON INTERNATIONAL

INTRODUCTION

The U.S. Environmental Protection Agency (EPA), Region IX, under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA) has tasked the Arizona Department of Environmental Quality (ADEQ) to conduct a Preliminary Assessment (PA) at the Houston International (HI) site, located at 655 E. 20th Street, Yuma, Yuma County, Arizona. The HI site was entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) on April 19, 1994, and assigned an EPA ID number of AZD983480963. The EPA identified the site for CERCLIS through its investigation of Yuma County under the Border Initiative Program. The geographic coordinates of the site are 32° 41' 27" north latitude, 114° 36' 38" west longitude. The U.S. Geological Survey location of the site is Township 8 South, Range 23 West, Section 34, NW¼, NE¼, SW¼ of the Gila and Salt River Baseline and Meridian [(A-08-23)34cab]. Figure 1, Site Location Map, shows the location of the site.

SITE DESCRIPTION

The site occupies 3.6 acres in an industrial area. The site is bordered to the north by 20th Street and to the west by Factor Avenue. There are businesses north of 20th Street and west of Factor Avenue. The site is bordered to the east by a vacant lot and to the south by a vacant lot and vacant buildings. Figure 2, Site Diagram, shows the site layout.

There are four buildings onsite. The first building is near the northwest corner of the site, facing 20th Street. The building presently includes three businesses. The northwest corner of the building is an exercise studio. The southwest corner of the building is a warehouse for Yuma Furniture. The east half of the building is a storage area for J. Marcel. The building also includes the owner's office and is listed as 653 E. 20th Street.

The second building is located east of the first building and also faces 20th Street. It presently houses Houston Fearless International, a manufacturer of film processing equipment. The third building is located behind (south) of the second building and houses a carpentry shop. The fourth building is located west of the third building and houses the paint shop.

The site also includes a paved parking lot and landscaped areas north of the first two buildings, paved areas between the buildings, and unpaved areas along the fence on the east, south, and west sides of the site. The site is surrounded by a 7-foot chain-link fence with locking gates at the northeast and northwest corners of the facility. The fence encloses part of the HI site, as shown in Figure 2, Site Diagram.

HI conducted soil sampling, soil vapor sampling, and groundwater sampling at the site. Results indicated that PCE is present in soil at concentrations up to 140 micrograms per kilogram ($\mu\text{g/kg}$), that PCE is present in soil vapor at concentrations up to 52,000 micrograms per liter ($\mu\text{g/L}$) and that PCE is present in groundwater at concentrations up to 270,000 $\mu\text{g/L}$. Sampling locations are shown in Figures 3, 4, and 5. Analytical results are presented in Tables 1 through 13. A discussion of sampling results is included in Appendix B.

REGULATORY INVOLVEMENT

U. S. Environmental Protection Agency.

The site was listed on CERCLIS on April 19, 1994.

Houston International is listed in the Resource Conservation and Recovery Information System (RCRIS) as a conditionally exempt generator of hazardous waste.

Arizona Department of Environmental Quality

On October 9, 1990, the ADEQ Underground Storage Tank (UST) Section was informed that PCE had been released from the 1,000 gallon UT. The onsite UT is a concrete holding tank, and does not meet the definition of an underground storage tank (UST); therefore, on October 19, 1990, the ADEQ UST Section referred the HI site to the ADEQ Hazardous Waste Section (HWS).

On August 12, 1991, the HWS requested additional information from HI. On December 10, 1991, the HWS sent a letter of warning. The HWS required that a hazardous waste determination be performed for all wastes generated by HI. On April 8, 1992, the HWS referred the site to the ADEQ Water Pollution Compliance Unit (WPCU).

On June 29, 1992, the WPCU held a technical assistance meeting with HI. The WPCU identified several violations and requested a remedial action plan. In July 1992, HI claimed that they quit discharging wastewater to the ground. HI submitted a sampling plan dated July 28, 1992, to the WPCU, and the WPCU provided comments on October 26, 1992. On January 8, 1993, the WPCU referred the HI site to the Remedial Projects Section (RPS) for investigation under CERCLA. The RPS referred the site to the HWS.

On June 24, 1993, the site was inspected by the ADEQ Hazardous Waste Section (HWS). ADEQ and HI entered into a Compliance Order in June 1994. In response to the Compliance Order, HI submitted a Site Assessment Plan (SAP), dated July 1994, and addenda to the SAP, dated August and September 1994. ADEQ approved the SAP with associated addenda in October 1994. Soil sampling was reportedly conducted in December 1994 and January 1995. A hydropunch survey was reportedly conducted in May 1995. An upgradient monitoring well was installed in March 1996. A discussion of sampling results is included in Appendix B.

In addition, there is a septic tank north of the first building, and another septic tank east of the second building. There is an underground tank (UT) east of the second building. In addition, there are four onsite groundwater monitoring wells. Also, there is one offsite groundwater monitoring well. See Figure 2.

Based upon information provided by Houston International, city directories, and aerial photographs, the site history is as follows. The site was vacant desert land until 1966. In 1966, Houston Photo Products began its operation at the site. The 1967 aerial photograph shows the second building mentioned above. Stained soil was observed onsite and on the adjacent property to the east, beginning with the 1970 aerial photograph. In the 1984 aerial photograph, all four buildings were onsite. In 1988, the name was changed to Houston International.

HI was engaged in two operations. HI operated a motion picture laboratory under contract with the Yuma Proving Ground as well as a manufacturing facility for the manufacture of photographic film and paper processing equipment for the photo industry. The chemicals that have been used at the site include standard photographic chemicals, tetrachloroethylene (PCE), and small amounts of various other chemicals.

In 1991, HI indicated that 275 to 300 gallons per week of photographic chemicals were used each week. In 1994, HI indicated that 500 gallons per month were used. In addition, thousands of gallons of water were used. The wastewater from the film developing operation was treated to recover silver flake. This silver flake was sent to Powers & Hunt Company or Commodity Refining Exchange for silver recovery. Approximately 80 to 90 pounds per year of silver flake were generated. The treated wastewater was disposed in the following ways. Some of the wastewater was discharged to the 1,000-gallon, concrete, underground tank. When this tank was full, it was discharged to the ground east of the building. Second, wastewater was discharged directly to the ground. Third, wastewater was discharged to the ground by a sprinkler system. When wastewater was discharged to the ground, it flowed onto the adjacent property to the east of the site.

From 1975 until the early 1990s, HI used PCE to clean stainless steel machine parts. PCE was kept in an onsite heating tank. HI used approximately 100 gallons of PCE per year. In 1978, a HI employee drained 15 to 20 gallons from the bottom of the heating tank to the 1,000-gallon concrete underground tank. In 1991, HI began using Industroclean (which contains ethylene glycol monobutyl ether) in place of PCE.

HI has ceased its operations at the site. The first building now houses three businesses: an exercise studio, a furniture warehouse, and storage for J. Marcel. The second building houses Houston Fearless International (HFI), a manufacturer of film processing equipment. The process includes lamination of Formica to wood, gluing wood to make cabinets, placing titanium or stainless steel tanks into the cabinets, connecting piping to the tanks, and attaching remaining equipment. HFI uses small amounts of chemicals. HFI has a solvent cleaning tank in the third building. The solvents used include Industroclean and lacquer thinner.

The ADEQ HWS conducted groundwater sampling for metals and PCE in 1993. PCE, lead, and selenium concentrations exceeded the EPA Maximum Contaminants Levels (MCLs). The ADEQ HWS conducted soil sampling for metals in 1994. All metals concentrations in soil were below the Arizona Soil Remediation Levels. A discussion of sampling results is included in Appendix B.

The Arizona Water Quality Assurance Revolving Fund (WQARF) program is preparing a site registry report and map for the site. ADEQ anticipates that the site will be listed on the WQARF registry under the name "20th Street and Factor Avenue site." Under the WQARF program, ADEQ sampled private wells within a 1-mile radius of the site. PCE was not detected in any of the wells. A discussion of sampling results is included in Appendix B. The sample plan is included in Appendix C. The analytical results are included in Appendix D.

SOURCES OF CONTAMINATION

The following sources of contamination have been identified:

- * PCE-contaminated soil. Based on the soil vapor survey conducted by Foree and Vann in 1994, contaminated soil is present in the vicinity of the onsite stained soils, the second building, and the 1,000-gallon, concrete, underground tank. PCE was detected in all soil vapor samples collected. The area of the PCE-contaminated soil was estimated as the area enclosed by the sampling points, shown on Figure 4. This estimated area is 10,000 square feet.
- * Stained soil. Metals were detected in soil samples collected by ADEQ in 1993. The concentrations of chromium, silver, and zinc may be significantly elevated above background based upon one background sample. The approximate area of stained soil, based upon Figure 4, is 13,000 square feet.
- * Underground tank. The tank collected PCE-laden wastewater and discharged it to the ground. Wastewater is no longer generated and discharged. The present condition of the tank and its contents is unknown. The volume of the tank is 1,000 gallons.

GROUNDWATER PATHWAY

The Yuma area is underlain by thick sequences of nonmarine and marine sedimentary rocks. However, only the upper several hundred feet of these sediments are hydrologically important. This is because the upper layers are extremely transmissive and yield sufficient quantities of water to wells. Therefore, only the three uppermost water-bearing units will be discussed. From lowest to uppermost, these are the wedge zone, the coarse-gravel zone, and the upper fine-grained zone. The wedge zone consists of interbedded sand and gravels. The coarse gravel zone is comprised of fine to coarse gravel and cobbles. The depth to the coarse gravel zone is approximately 180 feet beneath the Yuma Mesa. The thickness of this zone ranges from 0 to 100 feet in the Yuma area. The coarse gravel zone also is the major source of groundwater in the area.

The upper fine-grained zone is comprised predominantly of fine to medium sand and silt. However, sandy gravels and clay layers can be locally extensive. No clay layers are present in the well logs for the onsite wells. This zone is approximately 170-180 feet thick beneath the Yuma Mesa. Well logs for the onsite wells show that the sediments overlying the aquifer are comprised primarily of sands.

Depth to water is approximately 74 feet and the vadose zone overlying the aquifer is comprised of sand. Groundwater flow direction was projected to be to the west to west-northwest, based on maps of the Yuma area and groundwater level measurements at the site. The nearest drinking water wells are approximately ¼ mile upgradient of the site. There are approximately 350 domestic wells within 4 miles of the site, which supply drinking water to approximately 1,000 people.

There are four onsite groundwater monitoring wells and one offsite background groundwater monitoring well. Sampling results from 1996 indicate that PCE has been released from the site to groundwater, and that PCE is migrating vertically. Analytical results from 1998 indicate that PCE has not impacted any drinking water wells. A discussion of sampling results is included in Appendix B.

SURFACE WATER PATHWAY

The nearest surface water is the East Main Canal, located approximately 1½ miles west of the site. Surface water runoff drains north to 20th Street, or to low areas along the east and west sides of the property. Additionally, surface water runoff from adjacent properties to the south may drain to the HI site, and then to the low lying areas along the east and west sides of the site. The HI site is located in the 100-500 year floodplain.

SOIL EXPOSURE AND AIR PATHWAYS

The site is located in an industrial area. The climate is arid and soils may easily become airborne. There are four buildings onsite, as shown in Figure 2. Unpaved areas are present along the fence line and along the south side of the site. Paved areas are present south and east of the first two buildings, as shown in Figure 2. There are a landscaped area and a paved parking lot north of the first two buildings. The site is surrounded by a 7-foot chain-link fence with locking gates at the northeast and northwest corners of the site.

Stained soil has been observed onsite along the east and south sides of the fence. Stained soil has also been observed on the vacant lot adjacent to the site to the east. Results of soil sampling indicate that all metals concentrations are below the Arizona Soil Remediation Levels. However, the concentrations of chromium, silver, and zinc may be significantly elevated above background. A discussion of sampling results is included in Appendix B.

There are approximately 29 employees onsite. There are no residents or schools onsite. The nearest schools are the Ham School, the Gila Vista Junior High School, and the McGraw School, all located approximately ¼ mile south of the site. There is a day care facility approximately ¼ mile from the site. The nearest residential area is located approximately ¼ mile west of the site. The Yuma Rodeo

Grounds are approximately ½ mile northwest of the site. Additionally, there are commercial areas, residential areas, and rural areas within 4 miles of the site. There are approximately 68,000 residents within 4 miles of the site. The population within 4 miles of the site is summarized below.

Distance	Population
0 - ¼ mile	639
¼ - ½ mile	2,131
½ - 1 mile	8,483
1 - 2 miles	15,942
2 - 3 miles	20,704
3 - 4 miles	21,997

There are no sensitive environments onsite. However, habitat for the Yuma Clapper Rail and the Mexican Garter Snake occurs along the Colorado River, located approximately 2½ miles north of the site.

EMERGENCY RESPONSE CONSIDERATIONS

While an emergency response may not be required, an evaluation of actions to minimize leaching from the underground tank and PCE-contaminated soil, and vertical migration of PCE in groundwater may be appropriate.

HRS FACTORS

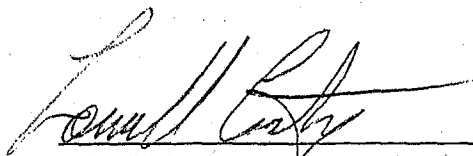
The following are HRS factors for the site:

- * PCE has been released from the site to groundwater.
- * PCE from the site has not impacted any drinking water wells.
- * Metal concentrations in soil are below the Arizona Soil Remediation Levels. These soils may become airborne due to the arid climate.

ADEQ MANAGEMENT REVIEW/CONCURRENCE

Site Name: Houston International

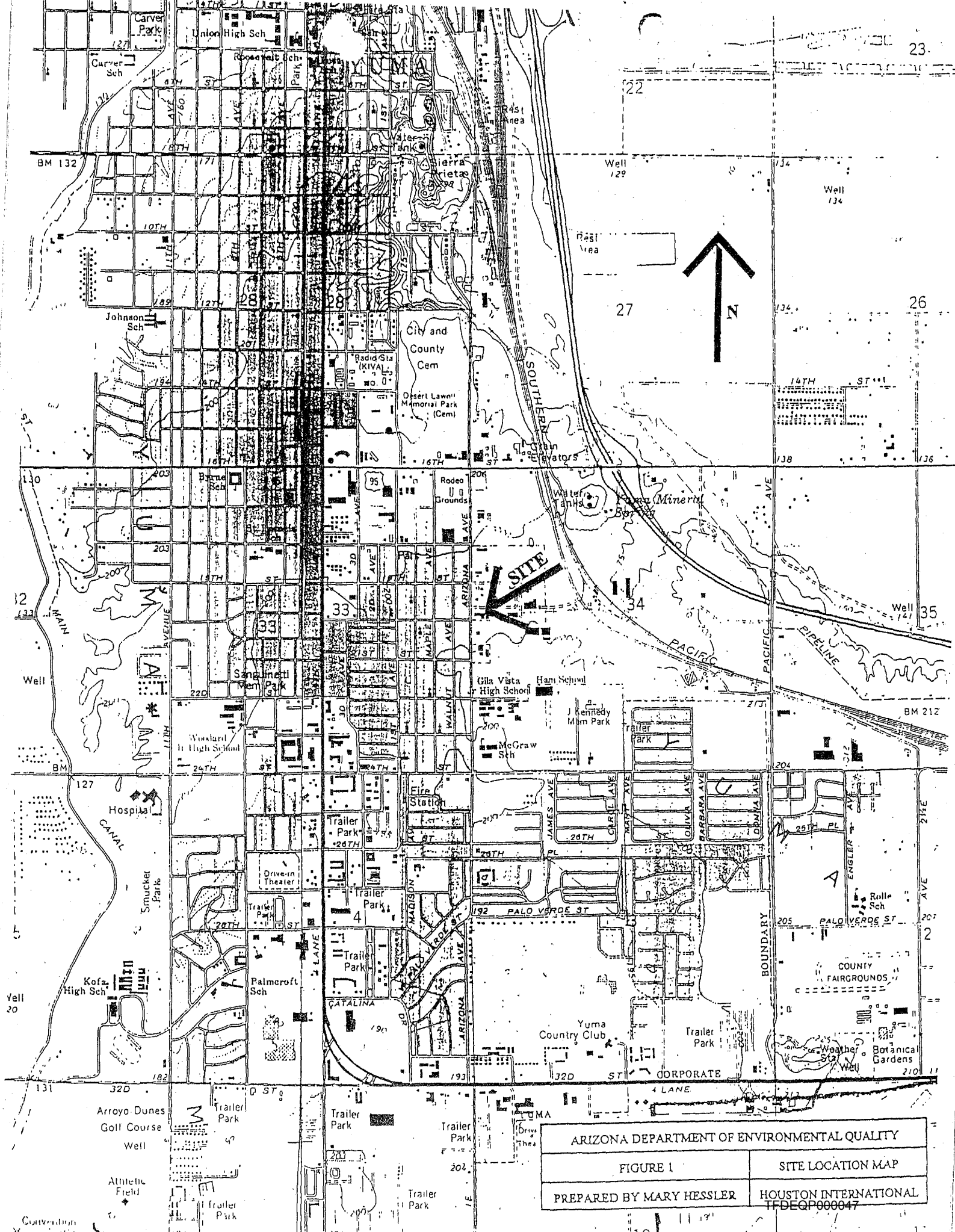
EPA ID No: AZD983480963



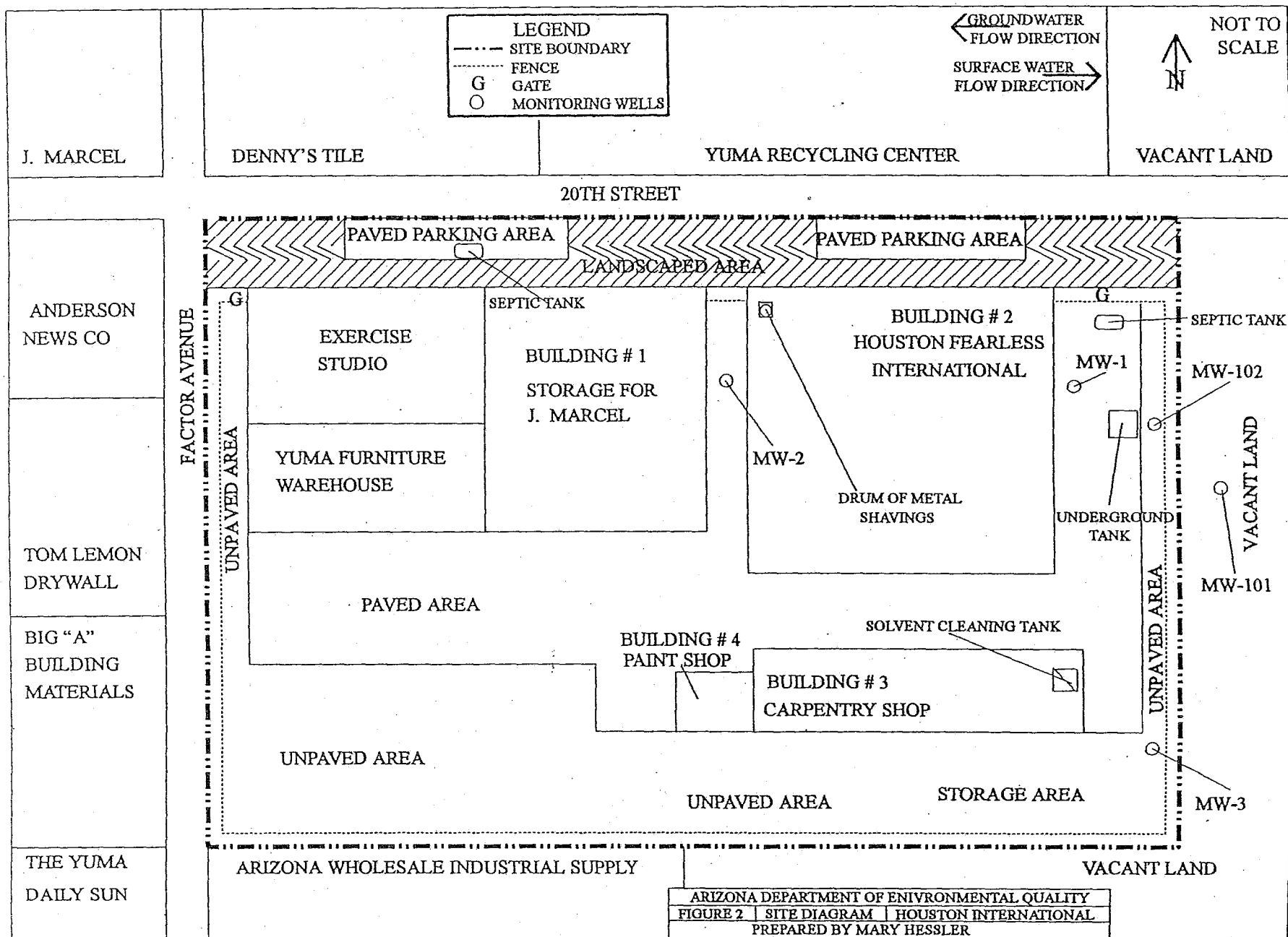
Lowell Carty, Manager
Site Assessment Unit

6-11-99

Date

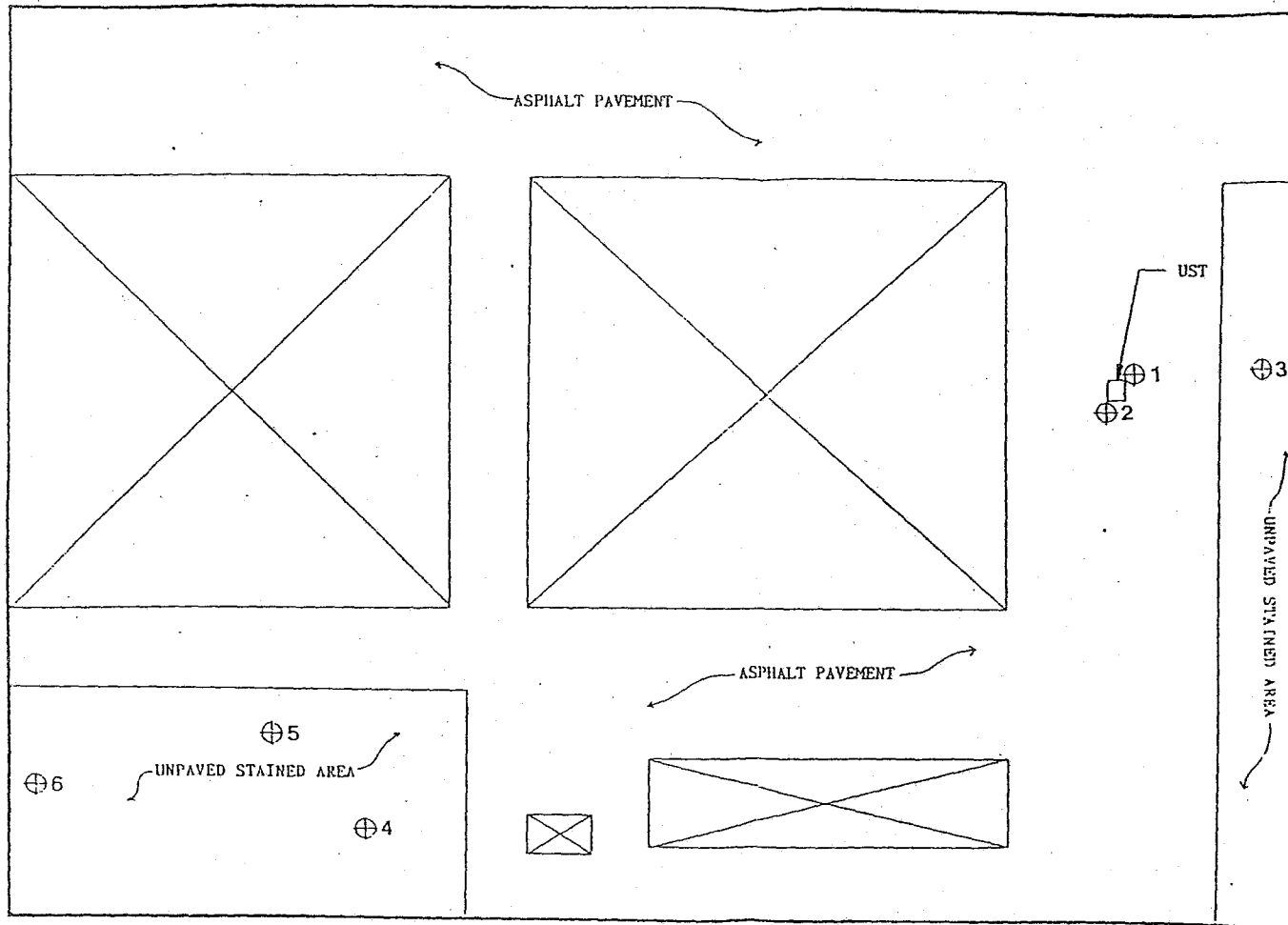


ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY	
FIGURE 1	SITE LOCATION MAP
PREPARED BY MARY HESSLER	HOUSTON INTERNATIONAL TFDEQP000047



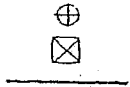
SITE PLAN

20TH ST.



LEGEND KEY

TEST BORING
STRUCTURE
SITE BOUNDARY



SCALE: 1" = 40'

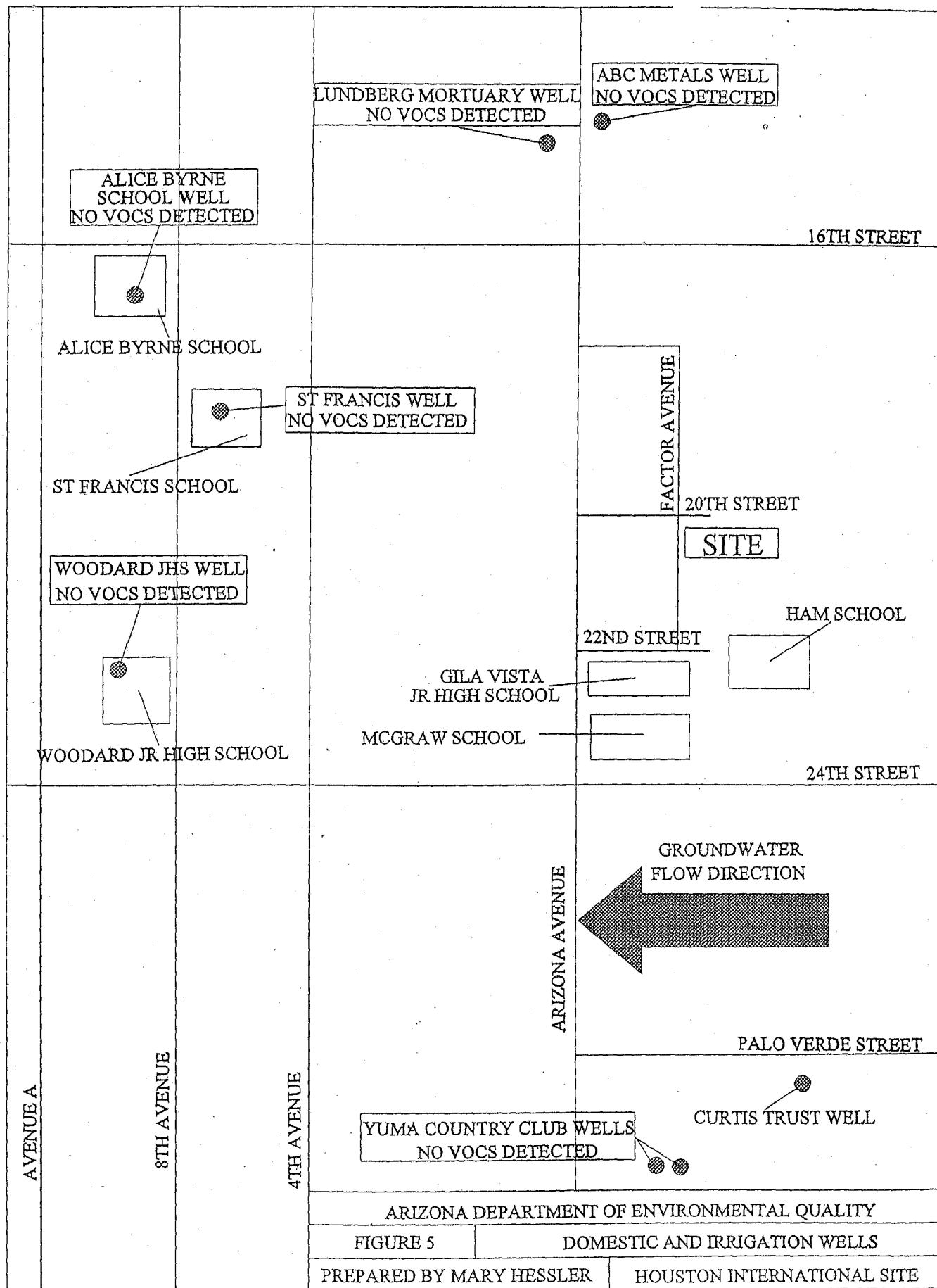
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

FIGURE 3 | SOIL SAMPLING LOCATIONS - 8/13/90 SOIL SAMPLING

SOURCE: FOREE & VANN

HOUSTON INTERNATIONAL

TFDEQP000049



REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IX

Site Name: Houston International EPA ID#: AZD983480963

Alias Site Names: _____

City: Yuma County or Parish: Yuma State: AZ

Refer to Report Dated: 6/8/99 Report type: Preliminary Assessment

Report developed by: Mary E. Hessler and Scott Goodwin

DECISION:

- ☒ 1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:
- ☒ 1a. Site does not qualify for further remedial site assessment under CERCLA (Site Evaluation Accomplished - SEA) | 1b. Site may qualify for further action, but is deferred to: | RCRA | NRC
- | 2. Further Assessment Needed Under CERCLA: 2a. (optional) Priority: | Higher | Lower
- 2b. Activity Type: | PA | SI | ESI | HRS evaluation
- | Other: _____

DISCUSSION/RATIONALE:

Site is significant source of contamination to soil and groundwater. However, low number of CERCLA targets (receptors) makes site ineligible for further assessment under CERCLA. Site should be addressed by State program.

Report Reviewed and Approved by: _____ Signature: _____ Date: _____

Site Decision Made by: J M Johnson Signature: J M Johnson Date: 6.30.99

REFERENCE LIST

REPORTS

"Phase II Environmental Assessment, Houston International, Ltd., Photo Products Division, 655 E. 20th Street, Yuma, AZ," Foree and Vann, Project 4255, September 21, 1990.

Enclosed.

"Site Assessment and Remedial Action Plan, Houston International, Ltd., Photo Products Division, 655 East 20th Street, Yuma, Arizona," Foree and Vann, F&V Project 4255, July 28, 1992.

Enclosed.

"Technical Report, Installation of MW-1 and Response to ADEQ, Houston International, Ltd., Yuma, Arizona," Foree and Vann, F&V Project 4255, November 23, 1992.

Enclosed.

Phase II Environmental Assessment, Soil & Groundwater Sampling, Houston International, Ltd., Yuma, Arizona, Foree and Vann, Inc., F&V Project 4255, January 25, 1993.

Enclosed.

Hazardous Waste Inspection Report, Houston Photo Lab, 655 E. 20th Street, Yuma, Arizona, EPA ID No. AZD983480963, ADEQ Hazardous Waste Compliance Unit, June 24, 1993.

Enclosed.

Technical Report, Installation of MW-3 and Quarterly Monitoring Report 1, Houston International, Ltd., Yuma, Arizona, Foree and Vann, Inc., F&V Project 4255, July 21, 1993.

Enclosed.

"Supplemental Report: Hazardous Waste Inspection," Houston International, 655 E. 20th Street, Yuma, Arizona, EPA ID No. AZD983480963, ADEQ Hazardous Waste Compliance Unit, August 17, 1993.

Enclosed.

"Quarterly Groundwater Monitoring Report # 2, Houston International, Ltd., 655 E. 20th Street," Yuma, Arizona, Foree and Vann, Project # 4255, October 25, 1993.

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QUESTIONNAIRE

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FEBRUARY 1998 SAMPLING EVENT

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Included in Appendix D.

MAY 1998 SAMPLING EVENT

Analytical Results, Arizona Department of Health Services Laboratory, Laboratory ID Nos. 54023-54028, dated May 21, 1998.

Included in Appendix D.

CORRESPONDENCE

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Enclosed.

Memorandum: Steve Hildreth, ADEQ Underground Storage Tanks Compliance Unit, to Al Brown, ADEQ Hazardous Waste Compliance Unit, UST Ref # 8779, October 19, 1990.

Enclosed.

Letter: James Clarke, Foree and Vann, to Herb Houston, Houston International, Ltd., RE: Addendum I, Phase II Environmental Site Assessment, December 20, 1990.

Enclosed.

Letter: Holly Wheeler-Benson, ADEQ Hazardous Waste Compliance Unit, to Herb Houston, Houston International, HWCU Ref #HW91-0387, August 12, 1991.

Enclosed.

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Enclosed.

Letter: Holly Wheeler-Benson, ADEQ Hazardous Waste Compliance Unit, to Herb Houston, Houston International, HWCU Ref #HW91-0530, December 10, 1991.

Enclosed.

Letter: Herb Houston, Houston International, to Holly Wheeler-Benson, ADEQ Hazardous Waste Compliance Unit, December 30, 1991.

Enclosed.

Letter Holly Wheeler-Benson, ADEQ Hazardous Waste Compliance unit, to Herb Houston, Houston International, HWCU Ref #HW92-0617, January 22, 1992.

Enclosed.

Letter: Holly Wheeler-Benson, ADEQ Hazardous Waste Compliance Unit, to Herb Houston, Houston International, HWCU Ref #HW92-0749, March 11, 1992.

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Letter: Herb Houston, Houston International, to Holly Wheeler-Benson, ADEQ Hazardous Waste Compliance Unit, March 31, 1992.

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Memorandum: Holly Wheeler-Benson, ADEQ Hazardous Waste Compliance Unit, to Bill Engstrom, ADEQ Office of Water Quality, Ref #WCU92-0101, April 8, 1992.

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Letter: Eric Wilson, ADEQ Water Pollution Compliance Unit, to Herb Houston, Houston International, Ref # WP-92-799, June 30, 1992.

Enclosed.

Memorandum: Eric Wilson, ADEQ Water Pollution Compliance Unit, to Aolad Hossain, ADEQ Office of Water Quality, July 13, 1992.

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Letter: Jeff Trembly, ADEQ, to Herb Houston, Houston International, RE: Groundwater Contamination at the Houston International Yuma Facility, July 27, 1993.

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Letter: Herb Houston, Houston International, to Laura Manley, ADEQ Hazardous Waste Inspections Unit, February 28, 1994.

Enclosed.

Letter: William Stefanov, Foree and Vann, to Laura Manley, ADEQ Hazardous Waste Inspections Unit, March 4, 1994.

Enclosed.

Letter: William Stefanov, Foree and Vann, to Steve Camp, ADEQ Hazardous Waste Compliance Unit, RE: "Addendum to Site Assessment Plan, Houston International, Ltd., 655 East 20th Street, Yuma, Arizona" August 2, 1994.

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Letter: William Stefanov, Foree and Vann, to Steve Camp, ADEQ Hazardous Waste Compliance Unit, RE: "Addendum 2 to Site Assessment Plan, Houston International, Ltd., 655 East 20th Street, Yuma, Arizona" October 13, 1994.

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Letter: Steve Camp, ADEQ Hazardous Waste Compliance Unit, to William Stefanov, Foree and Vann, RE: "Addendum 2 to Site Assessment Plan, Houston International, Ltd., 655 East 20th Street," November 2, 1994.

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Letter: Patrick Kuefler, ADEQ Hazardous Waste Compliance Unit, to Herb Houston, Houston International, July 24, 1995.

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Letter: Lupe Buys, ADEQ Hazardous Waste Compliance Unit; to Herb Houston, Houston International, Ltd.; RE: Review of and comments to the February 27, 1997, report entitled "Groundwater Sampling and Testing, Nested Groundwater Monitoring Well, Houston International Site," submitted by Geotechnical and Environmental Consultants on behalf of Houston International Ltd.; April 30, 1997.

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Letter: Ron Christofferson, Arizona Game and Fish Department, to Virginia Demetrios, Bechtel Environmental, Inc., November 15, 1993.

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Arizona Administrative Code, R18-7-201 through R18-7-209, December 31, 1997.

Available from ADEQ Rule Development Section.

CONTACT LOG AND CONTACT REPORTS ATTACHED

APPENDIX A
CONTACT LOG AND CONTACT REPORTS

PA/SI CONTACT LOG

Facility Name: Houston International

EPA ID Number: AZD983480963

NAME	AFFILIATION	PHONE	DATE	INFORMATION
	Yuma City Directories		8/20/97	See Contact Report
Valerie	Yuma County Assessor's Office	(520) 329-2025	8/27/97	See Contact Report
Art Hoffmeister	Arizona Department of Environmental Quality, Air Quality Division	(602) 207-2334	1/20/98	See Contact Report
Herb Houston	Houston International	(520) 329-9012	2/23/98	See Site Reconnaissance Interview and Observations Report
Wayne	City of Yuma Development Services	(520) 329-2290	2/23/98	See Contact Report
Mary Hessler	Arizona Department of Environmental Quality	(602) 207-4195	2/24/98	See Contact Report
Mary Hessler	Arizona Department of Environmental Quality	(602) 207-4195	5/4/98	See Contact Report

APPENDIX B

DISCUSSION OF ANALYTICAL DATA

APPENDIX B

DISCUSSION OF SAMPLING EVENTS

Foree and Vann - 1990

Foree and Vann, contractor for HI, conducted a Phase II Environmental Assessment in 1990. Blue-green soil staining was observed near the southwest corner of the site, and along the east boundary of the site. Foree and Vann drilled six exploratory borings. The locations of these borings are shown in Figure 3.

Soil borings 1, 2, and 3 were advanced near the east boundary of the site. Standing water and a hose connected to the 1,000-gallon, concrete, underground tank (UT) were observed in the stained area along the east boundary. Soil borings 1 and 2 were advanced in the vicinity of the UT, but no soil staining was reported in these borings. Soil boring 3 was advanced in the stained area east of the UT. The blue-green staining extended to 3.5 feet below land surface (bls), and light green staining was observed at 4 feet bls. No staining or odors were detected at 5 feet bls. A slight septic odor was detected at 19 feet bls. Soil borings 4, 5, and 6 were advanced near the southwest corner of the site and indicated that the blue-green staining extended only 1 to 3 inches bls. A sulfurous odor was present.

On August 13, 1990, samples were collected at depths of 5, 10, 15, and 20 feet bls in borings 1 and 2. The four samples from boring 1 were composited, and the four samples from boring 2 were composited. Borings 3 through 6 were drilled to a depth of 6 feet, with samples collected at 3 feet and 6 feet bls. An additional sample was collected from the ground surface at boring 6. The sample from boring 3 at 3 feet was analyzed. The samples from borings 4 through 6 were composited.

Seven days after sample collection (August 20, 1990), the samples were submitted to Copper State Analytical Lab. The samples were analyzed for EPTox metals and for volatile organic compounds (VOCs) by EPA Methods 8010/8020. The samples contained detectable concentrations of barium, cadmium, copper, lead, nickel, zinc, toluene, xylenes, chloroform, and PCE. No background samples were taken. Sampling results are presented in Tables 1 and 2.

Foree and Vann - 1992

On June 30, 1992, the ADEQ Water Pollution Compliance Unit requested that HI submit a Remedial Action Plan. In response, HI submitted a Site Assessment and Remedial Action Plan, prepared by Foree and Vann, dated July 28, 1992. ADEQ provided comments to HI in a letter dated October 26, 1992.

Foree and Vann, contractor for HI, began implementing the plan in October 1992. On October 22, 1992, Foree and Vann advanced one soil boring west (downgradient) of the underground tank and collected soil samples at depths of 11, 21, 31, 41, 51, 61, and 71 feet bls. Thirteen days later (November 4, 1992), these soil samples were submitted to Turner/CAS Laboratories for analysis for VOCs by EPA methods 8010/8020. All samples were non-detect for volatile organic

compounds (VOCs) with the exception of 140 µg/kg of PCE in the 11-foot sample. The detection limit for PCE was 50 µg/kg.

The soil boring was completed as groundwater monitoring well MW-1. The well is shown in Figure 2. Construction details are presented in Table 3. This well was developed and sampled on October 23, 1992. On October 26, 1992, the sample was submitted to Turner/CAS laboratories for analysis for VOCs by EPA method 502.2. The groundwater sample from MW-1 contained 20,000 micrograms per liter (µg/L) of PCE and 38 µg/L of toluene.

On December 9, 1992, Foree and Vann advanced four soil borings (B11 through B14) in the stained area on the south side of the site. Each boring was sampled at depths of 3 and 8 feet bls. In addition, a composite sample (COMP-1) of the top 6 inches of each boring was collected. On December 11, 1992, each soil sample was submitted to Turner/CAS Laboratories for analysis for VOCs by EPA methods 8010/8020. No VOCs were detected, but the detection limit for PCE was 50 µg/kg. The four samples taken at 8 feet were composited for metals analysis only and labeled B11-14@8'. Samples B11-14@8' and COMP-1 were analyzed for metals by TCLP. No TCLP metals were detected in any of the samples. COMP-1 was also analyzed for total metals by EPA method 3050/6010 and for mercury by EPA method 3050/7470. The metals arsenic at 6.0 milligrams per kilogram (mg/kg), barium at 55 mg/kg, chromium at 4.0 mg/kg, and silver at 31 mg/kg were detected in COMP-1. However, these concentrations are below the Arizona Soil Remediation Levels (SRLs).

On December 29, 1992, Foree and Vann advanced one soil boring west of the first building, which is also west (downgradient) of the underground tank and MW-1. This boring was completed as groundwater monitoring well MW-2. See Figure 2. The well was developed and sampled on January 7, 1993. On January 11, 1993, the groundwater sample was submitted to Turner/CAS Laboratories for analysis for VOCs by EPA method 502.2. Sample results are presented in Table 4.

Foree and Vann AND ADEQ - 1993

On March 18 and 19, 1993, Foree and Vann installed groundwater monitoring well MW-3 at the southeast corner of the site. See Figure 2. This well is cross-gradient of the underground tank. The well was developed on March 19, 1993. On April 21, 1993, groundwater samples were collected from all three monitoring wells. On April 26, 1993, the samples were submitted to Copper State Analytical Lab for analysis for VOCs by EPA method 502.2. The analytical results are presented in Table 5.

The ADEQ Hazardous Waste Section conducted an inspection on June 24, 1993. The HWS observed that HI was discharging wastewater to the ground via a sprinkler system. Wastewater was also discharged to a small field behind the building. Green staining was observed in the field. The HWS documented that the green color was from a dye additive.

On August 17, 1993, Foree and Vann (HI's contractor) collected groundwater samples from three onsite monitoring wells. On August 19, 1993, Foree and Vann submitted the samples to Turner/CAS Laboratories, Inc., for analysis for VOCs by EPA methods 601/602. The ADEQ Hazardous Waste Compliance Unit collected split samples. ADEQ submitted samples to the

State Laboratory for analysis for metals by the EPA 200 series methods. ADEQ also submitted samples to McKenzie Laboratories for analysis for VOCs by EPA methods 601/602. The chain-of-custody record for the ADEQ samples cannot be found. PCE was detected in all three monitoring wells. Several metals were detected also. Sampling results are presented in Tables 6 and 7.

ADEQ - 1994

The ADEQ HWS conducted an inspection on April 11 and 12, 1994. Blue-green soil staining was observed along the east fence line, an area formerly used to drain process water from the facility. Additional staining was observed in an area formerly used to spray wastewater with a sprinkler system.

The ADEQ Hazardous Waste Compliance Unit (HWCU) collected three surficial soil samples from the site on April 12, 1994. No map of soil sampling locations is available. One sample (HI-1) was collected from an area used to spray wastewater, and the third sample (HI-3) was collected from a stained area along the east side of the property used to drain wastewater. The second sample (HI-2) was collected from the south side of the property as a background sample. On April 14, 1994, the samples were submitted to the State Laboratory for analysis for total metals by EPA methods 3050/6010 and for mercury by EPA methods 3050/7471. Silver and zinc were detected in the stained soil samples (HI-1 and HI-3) only. Chromium was detected in HI-3 only. All of the metals concentrations (except arsenic) were below the SRLs. The detection limit for arsenic was 50 milligrams per kilogram, which exceeds the SRL of 10 milligrams per kilogram. Therefore, the sampling results are not sufficient to determine if the SRL for arsenic has been exceeded. Table 8 presents the sampling results.

Foree and Vann - 1994

Tracer Research, Inc., subcontractor to Foree and Vann, conducted a soil vapor survey of the site on April 11 - April 12, 1994. Tracer Research, Inc., also analyzed samples by an onsite gas chromatograph for PCE, trichloroethylene (TCE), and 1,1,1-trichloroethane (1,1,1-TCA). Samples were taken 4.5 to 6.5 feet bls. PCE concentrations up to 52,000 µg/L were detected, with the highest concentrations near the northeast corner of the facility, along the south side of the first building, and on the west side of the first building. Figure 4 shows the sampling locations and PCE concentrations.

Foree and Vann collected two wastewater samples on July 18, 1994. Samples 4255718-1 and 4255718-2 were collected from the color film processing waste stream. Samples 4255718-3 and 4255718-4 were collected from the black and white film processing waste stream. The samples were submitted to McKenzie Laboratories for analysis for VOCs by EPA method 502.2, for total metals by EPA method 200.7, and for mercury by EPA method 245.1. The results are presented in Table 9.

The color film processing waste stream samples contained bromodichloromethane, bromoform, chloroethane, chloroform, and dibromochloromethane. HI indicated that these VOCs are chemical and/or biological degradation products or reactants associated with the photo processing chemicals. Methylene chloride and PCE were also detected in the black and white processing

waste stream samples, but the source of these VOCs is unknown. The black and white processing waste stream is discharged to the underground tank. HI speculated that PCE may still be present in the underground tank, and that PCE was detected in the wastewater due to mixing. HI further speculated that methylene chloride may be a breakdown product of PCE. The PCE concentration of 7.9 µg/L exceeded the EPA Maximum Contaminant Level (MCL) of 5 µg/L.

Discussion - The soil vapor results indicate that The wastewater results indicate that PCE was present in the wastewater in 1994, even though PCE use was reportedly discontinued in 1991. This raises a concern that a continuing source of PCE may be present, even though PCE is no longer used.

GEC - 1996

A fourth monitoring well (MW-101) was installed upgradient (east) of the site, on an adjacent property in March 1996. The well was sampled on March 21, 1996, and samples were submitted to Del Mar Analytical and analyzed by EPA methods 601/602. This sample from the well indicated that 20 µg/L of PCE, 4.2 µg/L of bromodichloromethane, and 4.7 µg/L of chloroform were present.

Geotechnical and Environmental Consultants (GEC), contractor for HI, sampled the four monitoring wells in October 1996. However, the wells were purged on October 3, 1996, and sampled on October 4, 1996. This procedure is not acceptable, and, therefore, the sampling results are questionable. Samples were submitted to Del Mar Analytical and were analyzed by EPA methods 601/602. The Sampling results are shown in Table 10.

A fifth monitoring well (MW-102) was installed November 1996. The well was nested with three screened intervals (80-90 feet, 110-120 feet, 140-150 feet). The well was sampled on November 14, 1996, and samples were submitted to Del Mar Analytical for analysis by EPA methods 601/602. Sample results are presented in Table 11.

Discussion - The results indicate that PCE has been released from the site to groundwater. Results also seem to indicate that PCE is migrating vertically.

ADEQ - 1998

The ADEQ Site Assessment Unit (SAU) conducted a site inspection on February 23, 1998. In order to determine if production wells were impacted, ADEQ sampled seven wells within one mile of the site. On February 23 and 24, 1998, ADEQ collected groundwater samples from three production wells within 1 mile of the site. Four additional production wells were sampled on May 4, 1998. Construction details of the seven wells are listed in Table 12. No screened interval information is available for the wells.

Wells were sampled by turning on the pump, purging, and collecting a sample from the nearest available sampling point. Table 13 shows the available sampling points. The wells were purged until the groundwater parameters (temperature, pH, and specific conductivity) stabilized. Groundwater samples were collected in 40-milliliter amber glass vials. The vials were filled and capped so that no air bubbles were visible inside. The samples were submitted to the State

Laboratory for analysis by EPA method 502.2. Sampling results were non-detect for PCE for all samples. Results are presented in Table 13.

Other Investigations

Under the ADEQ Underground Storage Tanks program, investigations have been conducted at three nearby sites. The sites are Southwest Gas at 630 E. 18th Place, Chevron #94567 at 1450 E. 16th Street, and the Southern Pacific Yuma Yard at the end of 20th Street at the railroad tracks. These three sites are located downgradient, crossgradient, and upgradient of the HI site, respectively. The six monitoring wells at the Southwest Gas facility are sampled on a quarterly basis and analyzed by EPA method 524. No PCE has been detected. Samples from the Chevron facility were analyzed for chlorinated VOCs, and PCE at a concentration of 0.77 $\mu\text{g/L}$ was found in monitoring well CW-15, near the northwest corner of the site. Since the Chevron site is located north-northeast of HI with no PCE detected in wells south of CW-15, it is unlikely that HI contributed to the PCE contamination at the Chevron site. Several of the wells at the Southern Pacific site were sampled and analyzed for chlorinated VOCs, but no chlorinated VOCs were detected in any of the samples.

DISCUSSION OF RESULTS

The composited soil sample results indicate that PCE and metals are present in onsite soils. However, the data are not depth-specific, and background samples were not collected. Therefore, the composited samples collected by Foree and Vann in August 1990 and December 1992 are not sufficient to document background concentrations or observed contamination.

The soil samples collected by Foree and Vann in October 1992 from MW-1 indicated that PCE was present at 140 $\mu\text{g/kg}$ in the 11-foot interval. PCE was not detected in any of the other intervals of MW-1 and was not detected in any of the December 1992 samples collected from the stained soil on the south side of the building.

The April 1994 soil results for metals have one background sample. The results suggest that silver, chromium, and zinc may be present above background but below Arizona Soil Remediation Levels. Two background samples are normally used to document background levels for metals.

The soil vapor samples collected by Foree and Vann in April 1994 indicate that low concentrations of PCE (up to 6 $\mu\text{g/L}$) are present in the vicinity of the first building. Higher concentrations of PCE (24 to 570 $\mu\text{g/L}$) were observed near the stained soil areas south of the first building and east of the second building. The highest PCE concentrations (>1,000 $\mu\text{g/L}$) were observed in the vicinity of the second building and near the UT. These results indicate that PCE-contaminated soil is present onsite, in the vicinity of the stained soils, the second building, and the UT.

The soil vapor results appear to be inconsistent with the December 1992 soil results. The differing results most likely occurred because the actual soil concentrations were less than the detection limit of 50 $\mu\text{g/kg}$.

The groundwater results from October 1996 indicate that PCE has been released from the site to groundwater. The PCE concentration in background well MW-101 was 5.2 $\mu\text{g/L}$. Wells MW-1 and MW-2, which are downgradient of the UT, had PCE concentrations of 1,300 and 3,000 $\mu\text{g/L}$, respectively. Well MW-3, which is cross-gradient to the UT, had a PCE concentration of 150 $\mu\text{g/L}$. The concentrations in wells MW-1, MW-2, and MW-3 exceed three times the background concentration. Therefore, it is concluded that PCE has been released from the site to groundwater. In addition, the November 1992 results from nested well MW-102 indicate that PCE is migrating vertically. The February 1998 and May 1998 results indicate that PCE has not migrated from the site to nearby domestic wells.

Table 1: Results of Foree & Vann Soil Sampling for EPTox Metals - 8/13/90 Results in Milligrams per Liter (mg/L)				
Analyte	Sample ID			
	Composite 1-5, 1-10, 1-15, 1-20	Composite 2-5, 2-10, 2-15, 2-20	Sample 3-2	Composite 4-2, 4-5, 5-2, 5-5, 6-6, 6-5
Barium	0.3	0.1	0.9	0.5
Cadmium	0.14	0.18	0.08	0.24
Copper	0.8	0.8	1.3	0.3
Lead	1.3	1.6	<0.1	0.7
Nickel	1.2	1.1	1.3	1.0
Zinc	1.8	2.3	2.4	1.0

Table 2: Results of Foree & Vann Soil Sampling for Volatile Organic Compounds - 8/13/90 Results in Micrograms per Kilogram (µg/kg)					
Analyte	Minimum GPL	Sample ID			
		Composite 1-5, 1-10, 1-15, 1-20	Composite 2-5, 2-10, 2-15, 2-20	Sample 3-2	Composite 4-2, 4-5, 5-2, 5-5, 6-6, 6-5
Chloroform	NA	<40	<40	<40	60
Tetrachloroethylene (PCE)	1,300	90	<40	<40	60
Toluene	400,000	2,880	2,520	2,970	100
Total Xylenes	2,200,000	40	<40	<40	70

Table 3: Monitoring Wells at the HI Site				
Well Name	Cadastral Location	ADWR Number	Well Depth	Screened Interval
MW-1	(C-08-23)34cba	55-537043	95 Feet	65 - 95 Feet
MW-2	(C-08-23)34cba	55-537614	95 Feet	65 - 96 Feet
MW-3	(C-08-23)34cba	55-537615	84 Feet	64 - 84 Feet
MW-101	(C-08-23)34cab	55-555248	90 Feet	50 - 90 Feet
MW-102A	(C-08-23)34cb	55-556705	90 Feet	80 - 90 Feet
MW-102B	(C-08-23)34cb	55-556705	120 Feet	110 - 120 Feet
MW-102C	(C-08-23)34cb	55-556705	150 Feet	140 - 150 Feet

Table 4: Results of January 7, 1993, Groundwater Sampling Results in Micrograms per Liter (µg/L)		
Analyte	MCL	Concentration
Tetrachloroethylene (PCE)	5.0	8,700
Trichloroethylene (TCE)	5.0	7.8
1,1,1-Trichloroethane (1,1,1-TCA)	200.0	0.6
1,1,2-Trichloroethane (1,1,2-TCA)	3.0	0.7
1,1-Dichloroethylene (1,1-DCE)	7.0	5.7
1,1-Dichloroethane	NA	1.4
1,1,1,2-Tetrachloroethane	NA	1.3
1,2-Dichlorobenzene	600	2.4
Chloroform	NA	1.4
Methylene Chloride	5.0	2.6
Benzene	5.0	1.2
Toluene	1,000	1.8
Naphthalene	NA	0.5

Table 5: Results of 4/21/93 Groundwater Sampling Results in Micrograms per Liter (µg/L)				
Analyte	MCL	MW-1	MW-2	MW-3
Tetrachloroethylene (PCE)	5.0	18,300	6,860	270,000
Trichloroethylene (TCE)	5.0	5.2	5.4	<0.0008
1,1,1-Trichloroethane (1,1,1-TCA)	200.0	8.6	<0.0008	<0.0008
1,2-Dichlorobenzene	600	6.5	<0.0008	<0.0008
Benzene	5.0	7.6	28,100	3.6
o-Xylene	10,000	1.5	46,600	<0.0008
m-Xylene	10,000	<0.0008	46,500	<0.0008
Toluene	1,000	<0.0008	29,200	<0.0008
Ethylbenzene	700	<0.0008	21,900	<0.0008

Table 6: Results of Groundwater Sampling for Volatile Organic Compounds - 8/17/93 Results in Micrograms per Liter (µg/L)					
Sampler	Analyte	MW-1	MW-2	MW-2 (Dup)	MW-3
MCL	Tetrachloroethylene (PCE)	5.0			
Foree & Vann	Tetrachloroethylene (PCE)	20,000	6,500	7,300	8,700
ADEQ	Tetrachloroethylene (PCE)	27,000	10,000	Not Analyzed	5,000

Table 7: Results of Groundwater Sampling for Metals - 8/17/93 Sampling Conducted by ADEQ Results in Milligrams per Liter (mg/L)						
Analyte	EPA Method	MCL	MW-1	MW-2	MW-2 (Dup)	MW-3
Barium	200.7/208.1	2.0	0.41	0.70	0.72	0.18
Cadmium	213.2	0.0050	<0.0010	0.0019	0.0015	<0.0010
Calcium	200.7/215.1	NA	236	322	334	59.2
Chromium	218.2	0.10	0.011	<0.010	0.012	<0.010
Iron	220.7/236.1	NA	19.0	18.9	19.1	9.03
Lead	239.2	0.015	<0.005	0.079	0.070	<0.005
Magnesium	220.7/242.1	NA	51.2	82.0	84.5	18.4
Manganese	200.7/243.1	NA	0.27	0.18	0.31	<0.05
Mercury	245.1	0.0020	<0.0005	0.0005	<0.0005	<0.0005
Selenium	270.2	0.050	0.012	0.102	0.050	<0.025
Sodium	200.7/273.1	NA	646	1,280	1,270	790
Zinc	289.1	NA	<0.05	0.09	0.15	<0.05

Table 8: Results of ADEQ Soil Sampling for Metals - 4/12/94 Results in Milligrams per Kilogram (mg/kg)				
Analyte	SRL	Sample ID		
		HI-1	HI-2	HI-3
Arsenic	10	<50	<50	<50
Barium	5,300	48	120	58
Cadmium	38	<10	<10	<10
Chromium	2,100	<10	<10	14
Cobalt	4,600	<10	<10	<10
Copper	2,800	<10	<10	<10
Iron	NA	2,600	2,200	2,800
Lead	400	<50	<50	<50
Manganese	3,200	56	97	27
Mercury	6.7	<0.25	<0.25	<0.25
Nickel	1,500	<10	<10	<10
Selenium	380	<200	<200	<200
Silver	380	37	<10	62
Zinc	23,000	20	<10	16

Table 9: Results of Wastewater Sampling for VOCs and Metals Results in Micrograms per Liter (µg/L)					
Analyte	MCL	Color Film Processing Waste Stream		Black & White Film Processing Waste Stream	
		4255718-1	4255718-2	4255718-3	4255718-4
Bromodichloromethane	NA	NA	47	NA	<0.5
Bromoform	NA	NA	4.8	NA	<0.5
Chloroethane	NA	NA	41	NA	<0.5
Chloroform	NA	NA	<0.5	NA	<0.5
Dibromochloromethane	NA	NA	33	NA	<0.5
Methylene Chloride	5.0	NA	<2.0	NA	2.7
Tetrachloroethylene (PCE)	5.0	NA	<0.5	NA	7.9
Barium	2,000	140	NA	140	NA

Table 10: Results of 10/4/96 Groundwater Sampling - Houston International Results in Micrograms per Liter (µg/L)						
Sampler	Analyte	MCL	MW-101	MW-1	MW-2	MW-3
GEC	Tetrachloroethylene (PCE)	5.0	5.2	1,300	3,000	150

Table 11: Results of 11/14/96 Groundwater Sampling - Houston International Results in Micrograms per Liter (µg/L)					
Sampler	Analyte	MCL	Well & Screened Interval		
			MW-102A 80-90 Feet	MW-102B 110-120 Feet	MW-102C 140-150 Feet
ADEQ	Bromodichloromethane	NA	<0.5	Not Sampled	9.0
ADEQ	Bromoform	NA	<0.5	Not Sampled	2.2
ADEQ	Chloroform	NA	<0.5	Not Sampled	11
ADEQ	Dibromochloromethane	NA	<0.5	Not Sampled	14
ADEQ	1,1-Dichloroethane	NA	<0.5	Not Sampled	0.9
GEC	Tetrachloroethylene (PCE)	5.0	78	38	520
ADEQ	Tetrachloroethylene (PCE)	5.0	76	Not Sampled	470
ADEQ	1,1,1-Trichloroethane (TCA)	200.0	<0.5	Not Sampled	2.0

Table 12: Production Wells within One Mile of the HI Site				
Well Name	Cadastral Location	ADWR Number	Well Depth	Comments
Derrick/ABC Metals	(C-08-23)27ccb	55-561713	160 Feet	Northwest of site, downgradient
Alice Byrne School	(C-08-23)33bba	55-613927	203 Feet	Northwest of site, downgradient
Desert Lawn	(C-08-23)28ddb	55-552374	365 Feet	Northwest of site, downgradient
Yuma Golf & Country Club # 1	(C-09-23)03cbd	55-506741	Not Available	South of site, cross-gradient
Yuma Golf & Country Club # 2	(C-09-23)03cbd	55-534324	Not Available	South of site, cross-gradient
Woodard Junior High School	(C-08-23)33cca	55-613924	300 Feet	West of site, down- to cross-gradient
St. Francis School	(C-08-23)33bdb	55-626423	318 Feet	West of site, down- to cross-gradient

Table 13: Groundwater Sampling at Domestic and Irrigation Wells within One Mile of HI
Results Presented in Micrograms per Liter

Well Name	Sampling Point	Sampling Date	PCE	Chloroform
MCL			5.0	NA
Derrick/ABC Metals	Tap next to well	2/23/98	<0.5	<0.5
Alice Byrne School	Irrigation gate in field	2/24/98	<0.5	<0.5
Desert Lawn	Discharge pipe to lawn	2/23/98	<0.5	<0.5
Yuma Golf & Country Club # 1	Fountain	5/4/98	<0.5	<0.5
Yuma Golf & Country Club # 2	Fountain	5/4/98	<0.5	<0.5
Woodard Junior High School	Pump	5/4/98	<0.5	1.2
St. Francis School	Pump	5/4/98	<0.5	<0.5

APPENDIX C
SAMPLE PLAN

Arizona Department of Environmental Quality
ABRIDGED GROUNDWATER SAMPLE PLAN

File #(s): _____ ; _____
Date(s): _____

This abridged groundwater sample plan is intended for use in the following situations: 1) When the urgency of sampling prevents the completion of a full-length plan; 2) When the scope of sampling does not merit a full-length plan; or, 3) When ADEQ is splitting samples collected by another party during ambient, compliance, or remedial sampling.

ALL WORK DESCRIBED IN THIS SAMPLING PLAN SHALL BE CONDUCTED IN ACCORDANCE WITH PROCEDURES DESCRIBED IN THE MOST RECENT VERSION OF THE ADEQ QUALITY ASSURANCE PROJECT PLAN (QAPP).

I. SITE / GENERAL INFORMATION

FACILITY/SITE Houston International SITE ID# 140033-00
ANTICIPATED SAMPLING DATE(S) February 23-24, 1998 NAME OF ADEQ SAMPLER(S) SAU
GEN. SAMPLE LOCATION: T 8S, R 23W, Sec 34, DEQ Basin _____, County Yuma
NO. OF WELLS PROPOSED FOR SAMPLING (SEE PART IV FOR DETAILS): Sample 4 wells (domestic and irrigation)
☐ SPLIT SAMPLE ☒ AMBIENT ☐ COMPLIANCE ☒ REMEDIAL
PROGRAM Site Assessment/WOARF PRIMARY SAMPLER D. Malone/T. Satterthwaite
☐ URGENT REQUEST (EXPLAIN) _____
☒ OTHER (EXPLAIN) Data needed to provide additional information on the effects of possible PCE release from Houston

II. ENVIRONMENTAL SAMPLES REQUESTED & RATIONALE

LAB: ☒ STATE LAB ☐ OTHER: _____

NO. OF SAMPLES	TEST	LAB METHOD	RATIONALE
6	Drinking Water VOCs	502.2	PCE is contaminant of concern; wells are mostly domestic use

III. QA/QC SAMPLES REQUESTED

No. DUP	No. BLK	TEST	DUPLICATE LOCATION	BLANK DESCRIPTION
	1	VOCs (502.2)		trip blank
1		VOCs (502.2)	55-561713	

CHAIN OF CUSTODY: ☒ YES ☐ NO (EXPLAIN) _____ TFDEQP000078

IV. WELLS PROPOSED FOR SAMPLING / FIELD PROTOCOLS

ANTICIPATED FIELD MEASUREMENTS:

☒ pH ☒ TEMPERATURE ☒ ELECTRICAL CONDUCTANCE
☐ WATER LEVEL ☐ DISCHARGE ☐ OTHER: _____

	OWNER NAME	SAMPLING POINT	PURGING/SAMPLING PROCEDURE
1. 55-561713	Derrick	spigot	No purging is required.
2. 55-552374	Desert Lawn	spigot	
3. 55-613924	Woodard Jr. High	spigot	
4. 55-613927	Byrne Elementary	spigot	
5. _____	_____	_____	_____
6. _____	_____	_____	_____

DECONTAMINATION NEEDED? ☐ Yes ☒ No (IDENTIFY) _____

OTHER FIELD CONSIDERATIONS? _____

*Well lat/long and field notes will be needed when analytical data is input into ADEQ database.

V. SAMPLE CONTAINERS / PRESERVATION

TEST	NO. & TYPE OF BOTTLES		FILTERED?		
VOCs	2	40 ml	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		HCL preservative, chilled to 4C
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No		_____
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No		_____
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No		_____
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No		_____
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No		_____
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No		_____
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No		_____

FILTERING PROCEDURE: _____

REMARKS: _____

VI. HEALTH & SAFETY PRECAUTIONS

☒ HEAT/COLD STRESS water, first aid kit
☐ GASES (TOXIC, CO₂, ETC..) _____
☒ SKIN/EYE CONTACT Acids in sample bottles
 MECHANICAL/ELECTRICAL _____
☐ FALLING OBJECTS/FOOTING _____
☐ OTHER _____

NEAREST HOSPITAL EMERGENCY ROOM Yuma Regional Medical Center PHONE # (520) 344-2000
 ADDRESS 2400 S. Avenue A, Yuma

ANTICIPATED PROTECTION LEVEL ☐ A ☐ B ☐ C ☒ D

(CONSULT SUPERVISOR ABOUT USING THIS FORM IF PROTECTION LEVELS A, B, OR C ARE ANTICIPATED.)

VII. ATTACHMENTS

☒ VICINITY MAP _____
☒ SAMPLING LOCATION MAP _____
☐ WELLS & WELL DATA TABLE _____
☐ TABLE(S) _____
☐ OTHER _____

VIII. SIGNATURES / APPROVALS

SAMPLE PLAN PREPARED BY: Debi Malone DATE: 2-18-98
 1ST LEVEL SUPERVISOR: _____ DATE: _____
 2ND LEVEL SUPERVISOR (IF NEEDED): _____ DATE: TFDEQP000079

APPENDIX D
ANALYTICAL RESULTS

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

March 10, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF

1520 West Adams, Phoenix, Arizona 85007

(602) 542-6108

DEBI MALONE	PR#:	EP 512820	TYPE OF SAMPLE:	GROUND WATER	Submitter's ID:	TRAVEL BLANK
ADEQ/WPD/SFS/SA	PCA:	92001	Custody:	Y	Date Sampled:	
3033 N. CENTRAL	INDEX:	33300	Priority:	3	Time Sampled:	
PHOENIX, AZ 85012	SITE CODE:	140033-00			Date Lab Rec:	02/24/98
	PWS NUMBER:					

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report. "ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: None

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
53353	02/25/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
		*Benzene	ND < 0.5 ug/l			0.5 ug/l		
		*Bromobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Bromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*Bromodichloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*Bromoform	ND < 0.5 ug/l			0.5 ug/l		
		*Bromomethane	ND < 0.5 ug/l			0.5 ug/l		
		*n-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*sec-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*tert-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Carbon Tetrachloride	ND < 0.5 ug/l			0.5 ug/l		
		*Chlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Chloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*Chloroform	ND < 0.5 ug/l			0.5 ug/l		
		*Chloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*2-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
		*4-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
		*Dibromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dibromo-3-chloro-				0.5 ug/l		
		*propane	ND < 0.5 ug/l					
		*1,2-Dibromoethane	ND < 0.5 ug/l			0.5 ug/l		
		*Dibromomethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,3-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,4-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Dichlorodifluoromethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved: *Patricia A. Adler*
Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000081

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
53353		*1,2-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*cis-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*trans-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*1,3-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*2,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
		*c-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
		*t-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
		*Ethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Hexachlorobutadiene	ND < 0.5 ug/l			0.5 ug/l		
		*Isopropylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*p-Isopropyltoluene	ND < 0.5 ug/l			0.5 ug/l		
		*Methylene Chloride	ND < 0.5 ug/l			0.5 ug/l		
		*Naphthalene	ND < 0.5 ug/l			0.5 ug/l		
		*n-Propylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Styrene	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,1,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,2,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*Tetrachloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*Toluene	ND < 0.5 ug/l			0.5 ug/l		
		*1,2,3-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,2,4-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,1-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,2-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*Trichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*Trichlorofluoromethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved:
Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000082

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
53353		*1,2,3-Trichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2,4-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,3,5-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Vinyl Chloride	ND < 0.5 ug/l			0.5 ug/l		
		*Xylenes, Total	ND < 0.5 ug/l			0.5 ug/l		
		*Chlorofluorobenzene(EICD)	104%			%		
		*Chlorofluorobenzene (PID)	102%			%		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000083

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

March 10, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF
1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

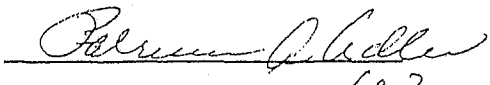
DEBI MALONE	PR#:	EP 512820	TYPE OF SAMPLE:	GROUND WATER	Submitter's ID:	55-561713
ADEQ/WPD/SFS/SA	PCA:	92001	Custody:	Y		DERRICK/ABC METALS
3033 N. CENTRAL	INDEX:	33300	Priority:	3	Date Sampled:	02/23/98
PHOENIX, AZ 85012	SITE CODE:	140033-00			Time Sampled:	1452
	PWS NUMBER:				Date Lab Rec:	02/24/98

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report.
"ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: A small bubble was detected in the vial before analysis.
+The reporting level for this analyte was raised due to matrix interference. The chlorofluorobenzene recovery was within acceptable QA/QC parameters for the 2/26/98 analysis.

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LM
53354		*						
	02/25/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
	02/25/98	*Benzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromodichloromethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromoform	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromomethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*n-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*sec-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*tert-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Carbon Tetrachloride	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chloroform	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chloromethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*2-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*4-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Dibromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2-Dibromo-3-chloro-				0.5 ug/l		
		*propane	ND < 0.5 ug/l					
	02/25/98	*1,2-Dibromoethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Dibromomethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,3-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,4-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/26/98	*Dichlorodifluoromethane	ND < 1.0 ug/l			0.5 ug/l		
	02/25/98	*1,1-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved: 
Patricia A. Adler, Chief
Office of Environmental and Analytical Chemistry

TFDEQP000084

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LA
53354	02/25/98	*1,2-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*cis-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*trans-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,3-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*2,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*c-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*t-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Ethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Hexachlorobutadiene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Isopropylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*p-Isopropyltoluene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Methylene Chloride	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Naphthalene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*n-Propylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Styrene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1,1,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1,2,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Tetrachloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Toluene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2,3-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2,4-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1,1-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1,2-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Trichloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Trichlorofluoromethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000085

ARIZONA DEPARTMENT OF HEALTH SERVICES

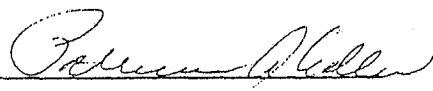
State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
53354	02/25/98	*1,2,3-Trichloropropane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2,4-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,3,5-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Vinyl Chloride	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Xylenes, Total	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chlorofluorobenzene(EICD)	104%			%		
	02/25/98	*Chlorofluorobenzene (PID)	100%			%		

Reviewed and Approved:
Patricia A. Adler, Chief
Office of Environmental and Analytical Chemistry


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TFDEQP000086

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

March 10, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF

1520 West Adams, Phoenix, Arizona 85007

(602) 542-6108

DEBI MALONE	PR#:	EP 512828	TYPE OF SAMPLE: GROUND WATER	Submitter's ID: 55-613927
ADEQ/WPD/SFS/SA	PCA:	92001	Custody: Y	BYRNE SCHOOL
3033 N. CENTRAL	INDEX:	33300	Priority: 3	Date Sampled: 02/24/98
PHOENIX, AZ 85012	SITE CODE:	140033-00		Time Sampled: 0902
	PWS NUMBER:			Date Lab Rec: 02/24/98

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report. "ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: None

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LV
53352	02/25/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
		*Benzene	ND < 0.5 ug/l			0.5 ug/l		
		*Bromobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Bromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*Bromodichloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*Bromoform	ND < 0.5 ug/l			0.5 ug/l		
		*Bromomethane	ND < 0.5 ug/l			0.5 ug/l		
		*n-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*sec-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*tert-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Carbon Tetrachloride	ND < 0.5 ug/l			0.5 ug/l		
		*Chlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Chloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*Chloroform	ND < 0.5 ug/l			0.5 ug/l		
		*Chloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*2-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
		*4-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
		*Dibromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dibromo-3-chloro-propane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dibromoethane	ND < 0.5 ug/l			0.5 ug/l		
		*Dibromomethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,3-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,4-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Dichlorodifluoromethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved:
 Patricia A. Adler, Chief
 Office of Environmental and Analytical Chemistry

TFDEQP000087

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LM
53352		*1,2-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*cis-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*trans-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*1,3-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*2,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
		*c-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
		*t-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
		*Ethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Hexachlorobutadiene	ND < 0.5 ug/l			0.5 ug/l		
		*Isopropylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*p-Isopropyltoluene	ND < 0.5 ug/l			0.5 ug/l		
		*Methylene Chloride	ND < 0.5 ug/l			0.5 ug/l		
		*Naphthalene	ND < 0.5 ug/l			0.5 ug/l		
		*n-Propylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Styrene	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,1,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,2,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*Tetrachloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*Toluene	ND < 0.5 ug/l			0.5 ug/l		
		*1,2,3-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,2,4-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,1-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,2-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*Trichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*Trichlorofluoromethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved: *Patricia A. Adler*
Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000088

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
53352								
		*1,2,3-Trichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2,4-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,3,5-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Vinyl Chloride	ND < 0.5 ug/l			0.5 ug/l		
		*Xylenes, Total	ND < 0.5 ug/l			0.5 ug/l		
		*Chlorofluorobenzene(EICD)	100% ug/l			%		
		*Chlorofluorobenzene (PID)	98% ug/l			%		

Reviewed and Approved:
Patricia A. Adler, Chief

Patricia A. Adler
3/3

Office of Environmental and Analytical Chemistry

TFDEQP000089

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

March 10, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF
1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

DEBI MALONE	PR#:	EP 512820	TYPE OF SAMPLE:	GROUND WATER	Submitter's ID:	55-552374
ADEQ/WPD/SFS/SA	PCA:	92001	Custody:	Y	DESERT LAWN	
3033 N. CENTRAL	INDEX:	33300	Priority:	3	Date Sampled:	02/23/98
PHOENIX, AZ 85012	SITE CODE:	140033-00			Time Sampled:	1534
	PWS NUMBER:				Date Lab Rec:	02/24/98

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report. "ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: A small bubble was detected in the vial before analysis.

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING L
53351	02/25/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
		*Benzene	0.6 ug/l			0.5 ug/l		
		*Bromobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Bromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*Bromodichloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*Bromoform	ND < 0.5 ug/l			0.5 ug/l		
		*Bromomethane	ND < 0.5 ug/l			0.5 ug/l		
		*n-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*sec-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*tert-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Carbon Tetrachloride	ND < 0.5 ug/l			0.5 ug/l		
		*Chlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Chloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*Chloroform	ND < 0.5 ug/l			0.5 ug/l		
		*Chloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*2-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
		*4-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
		*Dibromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dibromo-3-chloro-				0.5 ug/l		
		*propane	ND < 0.5 ug/l					
		*1,2-Dibromoethane	ND < 0.5 ug/l			0.5 ug/l		
		*Dibromomethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,3-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,4-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Dichlorodifluoromethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000090

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
53351		*1,2-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*cis-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*trans-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*1,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*1,3-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*2,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
		*c-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
		*t-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
		*Ethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Hexachlorobutadiene	ND < 0.5 ug/l			0.5 ug/l		
		*Isopropylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*p-Isopropyltoluene	ND < 0.5 ug/l			0.5 ug/l		
		*Methylene Chloride	ND < 0.5 ug/l			0.5 ug/l		
		*Naphthalene	ND < 0.5 ug/l			0.5 ug/l		
		*n-Propylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Styrene	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,1,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,2,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*Tetrachloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*Toluene	ND < 0.5 ug/l			0.5 ug/l		
		*1,2,3-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,2,4-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,1-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*1,1,2-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
		*Trichloroethene	ND < 0.5 ug/l			0.5 ug/l		
		*Trichlorofluoromethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved:
Patricia A. Adler, Chief

Patricia A. Adler
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Office of Environmental and Analytical Chemistry

TFDEQP000091

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LM
53351		*1,2,3-Trichloropropane	ND < 0.5 ug/l			0.5 ug/l		
		*1,2,4-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*1,3,5-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
		*Vinyl Chloride	ND < 0.5 ug/l			0.5 ug/l		
		*Xylenes, Total	ND < 0.5 ug/l			0.5 ug/l		
		*Chlorofluorobenzene(EICD)	100% ug/l			%		
		*Chlorofluorobenzene (PID)	104% ug/l			%		

Reviewed and Approved:
Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000092

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

March 9, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF

1520 West Adams, Phoenix, Arizona 85007

(602) 542-6108

DEBI MALONE	PR#:	EP 512820	TYPE OF SAMPLE: GROUND WATER	Submitter's ID: 55-5617130
ADEQ/WPD/SFS/SA	PCA:	92001	Custody: Y	ABC METALS
3033 N. CENTRAL	INDEX:	33300	Priority: 3	Date Sampled: 02/23/98
PHOENIX, AZ 85012	SITE CODE:	140033-00		Time Sampled: 1453
	PWS NUMBER:			Date Lab Rec: 02/24/98

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report. "ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: A small bubble was detected in the vial before analysis. +The reporting level for this analyte was raised due to matrix interference. Chlorofluorobenzene recoveries are within acceptance criteria for the 2/26/98 analysis.

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LM
53350					EPA 502.2		N/A	
	02/25/98	SDW Volatile Organic Cmpds						
	02/25/98	*Benzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromodichloromethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromoform	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Bromomethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*n-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*sec-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*tert-Butylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Carbon Tetrachloride	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chloroform	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chloromethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*2-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*4-Chlorotoluene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Dibromochloromethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2-Dibromo-3-chloro-				0.5 ug/l		
	02/25/98	*propane	ND < 0.5 ug/l					
	02/25/98	*1,2-Dibromoethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Dibromomethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,3-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,4-Dichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/26/98	*Dichlorodifluoromethane	ND < 1.0 ug/l			0.5 ug/l		
	02/25/98	*1,1-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved:
Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000093

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
53350	02/25/98	*1,2-Dichloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*cis-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*trans-1,2-Dichloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,3-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*2,2-Dichloropropane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*c-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*t-1,3-Dichloropropene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Ethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Hexachlorobutadiene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Isopropylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*p-Isopropyltoluene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Methylene Chloride	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Naphthalene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*n-Propylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Styrene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1,1,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1,2,2-Tetrachloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Tetrachloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Toluene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2,3-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2,4-Trichlorobenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1,1-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,1,2-Trichloroethane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Trichloroethene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Trichlorofluoromethane	ND < 0.5 ug/l			0.5 ug/l		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000094

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
53350	02/25/98	*1,2,3-Trichloropropane	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,2,4-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*1,3,5-Trimethylbenzene	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Vinyl Chloride	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Xylenes, Total	ND < 0.5 ug/l			0.5 ug/l		
	02/25/98	*Chlorofluorobenzene(EICD)	100%			%		
	02/25/98	*Chlorofluorobenzene (PID)	99%			%		

Reviewed and Approved:
Patricia A. Adler, Chief

Patricia A. Adler
3/3

Office of Environmental and Analytical Chemistry

TFDEQP000095



BUREAU OF STATE LABORATORY SERVICES
1520 N. Adams Phoenix, AZ 85007
602-542-6108

REQUEST FOR CHEMICAL ANALYSES FORM

Date Received and Lab Number

PROJECT MANAGER: <u>Debi Malone</u>	CONTINUATION FORM USED? <u>YES</u> No
PHONE NUMBER: <u>207-4453</u>	SAMPLE NAME/IDENTIFICATION/LOCATION: <u>55-561713 Leckick/ABC Metals</u>
AGENCY: <u>ADT</u>	DATE SAMPLED: <u>8-23-98</u> TIME SAMPLED: <u>2:52P</u>
OFFICE/SECTION/UNIT: <u>WRD/SFS/SA</u>	# OF CONTAINERS: <u>2</u>
ADDRESS: <u>3033 N Central Ave 7th floor</u>	CHAIN OF CUSTODY? <u>(YES)</u> No
CITY: <u>PHOENIX</u>	CALL RESULTS? <u>(YES)</u> No
STATE: <u>AZ</u> ZIP CODE: <u>85012</u>	NEED RESULTS BY: <u>Verbal in 2 weeks (March 6th)</u>
SUBMITTER/SAMPLER: <u>Debi Malone</u>	SAMPLE MATRIX:
PHONE NUMBER: <u>207-4453</u>	<input checked="" type="checkbox"/> Ground Water <input type="checkbox"/> Food <input type="checkbox"/> Soil/Sludge
ADEQ ONLY:	<input type="checkbox"/> Surface Water <input type="checkbox"/> Hi Vol Filter <input type="checkbox"/> Haz Waste
PR#: <u>EP-512820</u> PCA: <u>92001</u>	<input type="checkbox"/> Waste Water <input type="checkbox"/> I H Filter <input type="checkbox"/> Bulk
SITE CODE: <u>140033-00</u> INDEX: <u>33300</u>	<input type="checkbox"/> Drinking Water <input type="checkbox"/> Sorbent Tube
Priority: <input type="checkbox"/> 1. Immediate health or environmental emergency	Chlorinated? Yes/No <u>(No)</u> OTHER:
<input type="checkbox"/> 2. Chronic or potential health & environmental hazard	
<input checked="" type="checkbox"/> 3. Routine Surveillance	

FOR DRINKING WATER COMPLIANCE TESTING SUPPLY PWS NUMBER: DWAR? Yes No

MULTI-PARAMETER TESTS	METALS-ALL MATRICES	SOILS / SLUDGES OR HAZARDOUS MATERIALS	INDUSTRIAL HYGIENE ANALYSES:
INORGANICS ONLY	PROCESSING NEEDED:		
SAFE DRINKING WATER	<input type="checkbox"/> F3 Dissolved (field filtered)	<input type="checkbox"/> G12 Cyanide, total	
<input type="checkbox"/> A1 All inorganics	<input type="checkbox"/> F4 Dissolved (lab filtered)	<input type="checkbox"/> G3 Flash point	
<input type="checkbox"/> A8 Lead & Copper only	<input type="checkbox"/> F2 Total recoverable (waters only)	<input type="checkbox"/> A00 Percent solids	
AMBIENT SURFACE WATER	<input type="checkbox"/> F1 Total digested (solid/sludges only)	<input type="checkbox"/> G8 Percent water (KF)	
<input type="checkbox"/> B1 All inorganics	METALS:	<input type="checkbox"/> G1 pH, corrosivity	
<input type="checkbox"/> A11 Priority pollutant metals-dissolved	<input type="checkbox"/> F5 Aluminum	<input type="checkbox"/> G2 pH, soil	
<input type="checkbox"/> A10 Priority pollutant metals-total	<input type="checkbox"/> F6 Antimony	<input type="checkbox"/> G7 Unknown ID	<input type="checkbox"/> SLC <input type="checkbox"/> LAB
INORGANICS - WATERS ONLY	<input type="checkbox"/> F7 Arsenic	TCLP METALS	SPECIAL REQUESTS:
<input type="checkbox"/> A5 Alkalinity	<input type="checkbox"/> F8 Barium	<input type="checkbox"/> H1 TCLP extraction	
<input type="checkbox"/> E11 Ammonia-nitrogen (NH3-N)	<input type="checkbox"/> F9 Beryllium	<input type="checkbox"/> H2 TC Arsenic	
<input type="checkbox"/> A6 Carbonate/Bicarbonate	<input type="checkbox"/> F10 Boron	<input type="checkbox"/> H3 TC Barium	
<input type="checkbox"/> E4 Chloride	<input type="checkbox"/> F11 Cadmium	<input type="checkbox"/> H4 TC Cadmium	
<input type="checkbox"/> E5 Conductivity, specific	<input type="checkbox"/> F12 Calcium	<input type="checkbox"/> H5 TC Chromium	
<input type="checkbox"/> E6 Cyanide amenable	<input type="checkbox"/> F32 Chromium-hexavalent	<input type="checkbox"/> H6 TC Lead	
<input type="checkbox"/> E7 Cyanide free	<input type="checkbox"/> F13 Chromium-total	<input type="checkbox"/> H7 TC Mercury	
<input type="checkbox"/> E8 Cyanide total	<input type="checkbox"/> F14 Cobalt	<input type="checkbox"/> H8 TC Selenium	
<input type="checkbox"/> E9 Fluoride	<input type="checkbox"/> F15 Copper	<input type="checkbox"/> H9 TC Silver	
<input type="checkbox"/> E10 Hardness	<input type="checkbox"/> F16 Iron	SOLVENTS	PRESERVATIVES USED:
<input type="checkbox"/> E12 Nitrate-nitrogen(NO3-N)	<input type="checkbox"/> F17 Lead	<input checked="" type="checkbox"/> I2 SDW VOCs (502.2)	<input checked="" type="checkbox"/> Cooled (Ice in chest)
<input type="checkbox"/> E13 Nitrite-nitrogen (NO2-N)	<input type="checkbox"/> F18 Magnesium	<input type="checkbox"/> I3 VOCs (601/602)	<input type="checkbox"/> Cooled (Temp: _____)
<input type="checkbox"/> E16 Nitrogen, Kjeldhal (TKN)	<input type="checkbox"/> F19 Manganese	<input type="checkbox"/> I4 BTEX only	<input type="checkbox"/> Mineral acid
<input type="checkbox"/> E15 Nitrogen-total (NO2/NO3-N)	<input type="checkbox"/> F20 Mercury	SYNTHETIC ORGANIC CHEMICALS (SOCs)	<input type="checkbox"/> Base
<input type="checkbox"/> E17 pH, water	<input type="checkbox"/> F21 Molybdenum	<input type="checkbox"/> J4 Chlorinated pesticide screen	<input type="checkbox"/> Thiosulfate
<input type="checkbox"/> E19 Phosphorus, total	<input type="checkbox"/> F30 Nickel	<input type="checkbox"/> K5 Custom GC/MS screen	<input type="checkbox"/> Ascorbic acid
<input type="checkbox"/> E20 Sulfate (SO4)	<input type="checkbox"/> F22 Potassium	<input type="checkbox"/> J10 EDB/DBCP screen	<input type="checkbox"/> Monochloroacetic acid
<input type="checkbox"/> E22 TDS	<input type="checkbox"/> F23 Selenium	<input type="checkbox"/> J9 GWPL screen	<input type="checkbox"/> Zinc acetate
<input type="checkbox"/> E23 TSS	<input type="checkbox"/> F33 Silicon	<input type="checkbox"/> Pesticides	
<input type="checkbox"/> E24 Turbidity	<input type="checkbox"/> F24 Silver	<input type="checkbox"/> Herbicides	
HI-VOL FILTER	<input type="checkbox"/> F25 Sodium	<input type="checkbox"/> Carbamates	
<input type="checkbox"/> D2 PM10	<input type="checkbox"/> F31 Strontium	<input type="checkbox"/> J8 PCBs screen	
	<input type="checkbox"/> F26 Thallium	<input type="checkbox"/> J1 SDW Carbamates	
	<input type="checkbox"/> F27 Tin	<input type="checkbox"/> J3 SDW Herbicides	
	<input type="checkbox"/> F34 Titanium		
	<input type="checkbox"/> F28 Vanadium		
	<input type="checkbox"/> F29 Zinc		
	MULTI-ELEMENT METALS SCREEN:		
	<input type="checkbox"/> G11 Soil		
	<input type="checkbox"/> A4 Water		

COMMENTS: (FOR LAB USE ONLY)

BUREAU OF STATE LABORATORY SERVICES
 1520 West Adams Street Phoenix, Arizona 85007
 (602) 542-6108

**REQUEST FOR CHEMICAL ANALYSIS
 SAMPLE CONTINUATION FORM**

Note: All samples must be of the same matrix. All tests must be the same for each sample.

Laboratory's Sample Number	Sampler's Identification/ Description	Date Sampled	Time Sampled	Number of Containers
53350	55-561713 D / ABC Melal	2-23-98	2:53p	2
53351	55-552574 / Desert Lawn	2-23-98	3:34p	2
53352	55-613927 / Byrne School	2-24-98	9:02A	2
53353	Travel Blank	—	—	2
53354	55-561713 / Derrick / ABC Melal	2-23-98	2:52p	2

*1
*2

Chain of Custody Needed? ☒ Yes ☐ No
 If yes, then complete lower section of document.

Comments for Lab use only: **1 small Bubble V#1 1/2*
**2 small bubble V#1 1/2*

CHAIN OF CUSTODY RECORD

Agency Name: ADEF		For Sampler's Use Only	
Sampler's Signature: Debi Malone		Samples offered? <input type="checkbox"/> Yes <input type="checkbox"/> No Samples Refused? <input type="checkbox"/>	
Print Name: Debi Malone		Samples offered to/refused by: Signature: _____	
		Title: _____	
		Date: _____	

Relinquished by: (Signature) Debi Malone (Print name) Debi Malone	Received by: (Signature) Joe Harmon (Print name) Joe Harmon	Date/Time 2/24/98 10:05

Final disposal: Date disposed _____ Signature: _____

TFDEQP000097

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

May 21, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF
1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108



DEBI MALONE	PR#:	EP 512828	TYPE OF SAMPLE: GROUND WATER	Submitter's ID: YCC-1
ADEQ/WPD/SPS/SAU	PCA:	92001	Custody: Y	
3033 N. CENTRAL	INDEX:	33300	Priority: 2	Date Sampled: 05/04/98
PHOENIX, AZ 85012	SITE CODE:			Time Sampled: 1245
	PWS NUMBER:			Date Lab Rec: 05/05/98

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report.
"ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: None

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54023	05/08/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
		*Benzene	ND			0.5 ug/l		
		*Bromobenzene	ND			0.5 ug/l		
		*Bromochloromethane	ND			0.5 ug/l		
		*Bromodichloromethane	ND			0.5 ug/l		
		*Bromoform	ND			0.5 ug/l		
		*Bromomethane	ND			0.5 ug/l		
		*n-Butylbenzene	ND			0.5 ug/l		
		*sec-Butylbenzene	ND			0.5 ug/l		
		*tert-Butylbenzene	ND			0.5 ug/l		
		*Carbon Tetrachloride	ND			0.5 ug/l		
		*Chlorobenzene	ND			0.5 ug/l		
		*Chloroethane	ND			0.5 ug/l		
		*Chloroform	ND			0.5 ug/l		
		*Chloromethane	ND			0.5 ug/l		
		*2-Chlorotoluene	ND			0.5 ug/l		
		*4-Chlorotoluene	ND			0.5 ug/l		
		*Dibromochloromethane	ND			0.5 ug/l		
		*1,2-Dibromo-3-chloro-				0.5 ug/l		
		*propane	ND					
		*1,2-Dibromoethane	ND			0.5 ug/l		
		*Dibromomethane	ND			0.5 ug/l		
		*1,2-Dichlorobenzene	ND			0.5 ug/l		
		*1,3-Dichlorobenzene	ND			0.5 ug/l		
		*1,4-Dichlorobenzene	ND			0.5 ug/l		
		*Dichlorodifluoromethane	ND			0.5 ug/l		
		*1,1-Dichloroethane	ND			0.5 ug/l		

Reviewed and Approved: *Patricia A. Adler* 5/21
Patricia A. Adler, Chief
Office of Environmental and Analytical Chemistry 143

TFDEQP000098

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54023		*1,2-Dichloroethane	ND			0.5 ug/l		
		*1,1-Dichloroethene	ND			0.5 ug/l		
		*cis-1,2-Dichloroethene	ND			0.5 ug/l		
		*trans-1,2-Dichloroethene	ND			0.5 ug/l		
		*1,2-Dichloropropane	ND			0.5 ug/l		
		*1,3-Dichloropropane	ND			0.5 ug/l		
		*2,2-Dichloropropane	ND			0.5 ug/l		
		*1,1-Dichloropropene	ND			0.5 ug/l		
		*c-1,3-Dichloropropene	ND			0.25 ug/l		
		*t-1,3-Dichloropropene	ND			0.25 ug/l		
		*1,3 Dichloropropene, Total	ND			0.5 ug/l		
		*Ethylbenzene	ND			0.5 ug/l		
		*Hexachlorobutadiene	ND			0.5 ug/l		
		*Isopropylbenzene	ND			0.5 ug/l		
		*p-Isopropyltoluene	ND			0.5 ug/l		
		*Methylene Chloride	ND			0.5 ug/l		
		*Naphthalene	ND			0.5 ug/l		
		*n-Propylbenzene	ND			0.5 ug/l		
		*Styrene	ND			0.5 ug/l		
		*1,1,1,2-Tetrachloroethane	ND			0.5 ug/l		
		*1,1,2,2-Tetrachloroethane	ND			0.5 ug/l		
		*Tetrachloroethene	ND			0.5 ug/l		
		*Toluene	ND			0.5 ug/l		
		*1,2,3-Trichlorobenzene	ND			0.5 ug/l		
		*1,2,4-Trichlorobenzene	ND			0.5 ug/l		
		*1,1,1-Trichloroethane	ND			0.5 ug/l		
		*1,1,2-Trichloroethane	ND			0.5 ug/l		
		*Trichloroethene	ND			0.5 ug/l		

Reviewed and Approved: Patricia A. Adler 921
Patricia A. Adler, Chief
Office of Environmental and Analytical Chemistry 243

TFDEQP000099

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54023		*Trichlorofluoromethane	ND			0.5 ug/l		
		*1,2,3-Trichloropropane	ND			0.5 ug/l		
		*1,2,4-Trimethylbenzene	ND			0.5 ug/l		
		*1,3,5-Trimethylbenzene	ND			0.5 ug/l		
		*Vinyl Chloride	ND			0.5 ug/l		
		*Xylenes, Total	ND			0.5 ug/l		
		*Chlorofluorobenzene(EICD)	100 %			%		
		*Chlorofluorobenzene (PID)	101 %			%		

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

May 21, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF
1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

DEBI MALONE PR#: EP 512820 TYPE OF SAMPLE: GROUND WATER Submitter's ID: YCC-2
ADEQ/SPD/SPS/SAU PCA: 92001 Custody: Y
3033 N. CENTRAL INDEX: 33300 Priority: 2 Date Sampled: 05/04/98
PHOENIX, AZ 85012 SITE CODE: Time Sampled: 1250
PWS NUMBER: Date Lab Rec: 05/05/98

Duplicate of YCC-1

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report.
"ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: A small bubble was detected in the vial at the time of submission and at the time of analysis.

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54024	05/08/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
		*Benzene	ND			0.5 ug/l		
		*Bromobenzene	ND			0.5 ug/l		
		*Bromochloromethane	ND			0.5 ug/l		
		*Bromodichloromethane	ND			0.5 ug/l		
		*Bromoform	ND			0.5 ug/l		
		*Bromomethane	ND			0.5 ug/l		
		*n-Butylbenzene	ND			0.5 ug/l		
		*sec-Butylbenzene	ND			0.5 ug/l		
		*tert-Butylbenzene	ND			0.5 ug/l		
		*Carbon Tetrachloride	ND			0.5 ug/l		
		*Chlorobenzene	ND			0.5 ug/l		
		*Chloroethane	ND			0.5 ug/l		
		*Chloroform	ND			0.5 ug/l		
		*Chloromethane	ND			0.5 ug/l		
		*2-Chlorotoluene	ND			0.5 ug/l		
		*4-Chlorotoluene	ND			0.5 ug/l		
		*Dibromochloromethane	ND			0.5 ug/l		
		*1,2-Dibromo-3-chloro-				0.5 ug/l		
		*propane	ND					
		*1,2-Dibromoethane	ND			0.5 ug/l		
		*Dibromomethane	ND			0.5 ug/l		
		*1,2-Dichlorobenzene	ND			0.5 ug/l		
		*1,3-Dichlorobenzene	ND			0.5 ug/l		
		*1,4-Dichlorobenzene	ND			0.5 ug/l		
		*Dichlorodifluoromethane	ND			0.5 ug/l		
		*1,1-Dichloroethane	ND			0.5 ug/l		

Reviewed and Approved: *Patricia A. Adler* 5/21
Patricia A. Adler, Chief
Office of Environmental and Analytical Chemistry 1/3

TFDEQP000101

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54024		*1,2-Dichloroethane	ND			0.5 ug/l		
		*1,1-Dichloroethene	ND			0.5 ug/l		
		*cis-1,2-Dichloroethene	ND			0.5 ug/l		
		*trans-1,2-Dichloroethene	ND			0.5 ug/l		
		*1,2-Dichloropropane	ND			0.5 ug/l		
		*1,3-Dichloropropane	ND			0.5 ug/l		
		*2,2-Dichloropropane	ND			0.5 ug/l		
		*1,1-Dichloropropene	ND			0.5 ug/l		
		*c-1,3-Dichloropropene	ND			0.25 ug/l		
		*t-1,3-Dichloropropene	ND			0.25 ug/l		
		*1,3 Dichloroproene, Total	ND			0.5 ug/l		
		*Ethylbenzene	ND			0.5 ug/l		
		*Hexachlorobutadiene	ND			0.5 ug/l		
		*Isopropylbenzene	ND			0.5 ug/l		
		*p-Isopropyltoluene	ND			0.5 ug/l		
		*Methylene Chloride	ND			0.5 ug/l		
		*Naphthalene	ND			0.5 ug/l		
		*n-Propylbenzene	ND			0.5 ug/l		
		*Styrene	ND			0.5 ug/l		
		*1,1,1,2-Tetrachloroethane	ND			0.5 ug/l		
		*1,1,2,2-Tetrachloroethane	ND			0.5 ug/l		
		*Tetrachloroethene	ND			0.5 ug/l		
		*Toluene	ND			0.5 ug/l		
		*1,2,3-Trichlorobenzene	ND			0.5 ug/l		
		*1,2,4-Trichlorobenzene	ND			0.5 ug/l		
		*1,1,1-Trichloroethane	ND			0.5 ug/l		
		*1,1,2-Trichloroethane	ND			0.5 ug/l		
		*Trichloroethene	ND			0.5 ug/l		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

TFDEQP000102

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54024		*Trichlorofluoromethane	ND			0.5 ug/l		
		*1,2,3-Trichloropropane	ND			0.5 ug/l		
		*1,2,4-Trimethylbenzene	ND			0.5 ug/l		
		*1,3,5-Trimethylbenzene	ND			0.5 ug/l		
		*Vinyl Chloride	ND			0.5 ug/l		
		*Xylenes, Total	ND			0.5 ug/l		
		*Chlorofluorobenzene (EICD)	99 %			%		
		*Chlorofluorobenzene (PID)	100 %			%		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

Patricia A. Adler 5/21
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TFDEQP000103

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

May 21, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF
1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

DEBI MALONE	PR#:	EP 512820	TYPE OF SAMPLE: GROUND WATER	Submitter's ID: YCC-3
ADEQ/WD/SPS/SAU	PCA:	92001	Custody: Y	
3033 N. CENTRAL	INDEX:	33300	Priority: 2	Date Sampled: 05/04/98
PHOENIX, AZ 85012	SITE CODE:			Time Sampled: 1300
	PWS NUMBER:			Date Lab Rec: 05/05/98

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report.
"ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: A small bubble was detected in the vial at the time of submission and at the time of analysis.

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54025	05/08/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
		*Benzene	ND			0.5 ug/l		
		*Bromobenzene	ND			0.5 ug/l		
		*Bromochloromethane	ND			0.5 ug/l		
		*Bromodichloromethane	ND			0.5 ug/l		
		*Bromoform	ND			0.5 ug/l		
		*Bromomethane	ND			0.5 ug/l		
		*n-Butylbenzene	ND			0.5 ug/l		
		*sec-Butylbenzene	ND			0.5 ug/l		
		*tert-Butylbenzene	ND			0.5 ug/l		
		*Carbon Tetrachloride	ND			0.5 ug/l		
		*Chlorobenzene	ND			0.5 ug/l		
		*Chloroethane	ND			0.5 ug/l		
		*Chloroform	ND			0.5 ug/l		
		*Chloromethane	ND			0.5 ug/l		
		*2-Chlorotoluene	ND			0.5 ug/l		
		*4-Chlorotoluene	ND			0.5 ug/l		
		*Dibromochloromethane	ND			0.5 ug/l		
		*1,2-Dibromo-3-chloro-				0.5 ug/l		
		*propane	ND					
		*1,2-Dibromoethane	ND			0.5 ug/l		
		*Dibromomethane	ND			0.5 ug/l		
		*1,2-Dichlorobenzene	ND			0.5 ug/l		
		*1,3-Dichlorobenzene	ND			0.5 ug/l		
		*1,4-Dichlorobenzene	ND			0.5 ug/l		
		*Dichlorodifluoromethane	ND			0.5 ug/l		
		*1,1-Dichloroethane	ND			0.5 ug/l		

Reviewed and Approved: *Patricia A. Adler* 5/2
Patricia A. Adler, Chief
Office of Environmental and Analytical Chemistry 193

TFDEQP000104

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54025		*1,2-Dichloroethane	ND			0.5 ug/l		
		*1,1-Dichloroethene	ND			0.5 ug/l		
		*cis-1,2-Dichloroethene	ND			0.5 ug/l		
		*trans-1,2-Dichloroethene	ND			0.5 ug/l		
		*1,2-Dichloropropane	ND			0.5 ug/l		
		*1,3-Dichloropropane	ND			0.5 ug/l		
		*2,2-Dichloropropane	ND			0.5 ug/l		
		*1,1-Dichloropropene	ND			0.5 ug/l		
		*c-1,3-Dichloropropene	ND			0.25 ug/l		
		*t-1,3-Dichloropropene	ND			0.25 ug/l		
		*1,3 Dichloroproene, Total	ND			0.5 ug/l		
		*Ethylbenzene	ND			0.5 ug/l		
		*Hexachlorobutadiene	ND			0.5 ug/l		
		*Isopropylbenzene	ND			0.5 ug/l		
		*p-Isopropyltoluene	ND			0.5 ug/l		
		*Methylene Chloride	ND			0.5 ug/l		
		*Naphthalene	ND			0.5 ug/l		
		*n-Propylbenzene	ND			0.5 ug/l		
		*Styrene	ND			0.5 ug/l		
		*1,1,1,2-Tetrachloroethane	ND			0.5 ug/l		
		*1,1,2,2-Tetrachloroethane	ND			0.5 ug/l		
		*Tetrachloroethene	ND			0.5 ug/l		
		*Toluene	ND			0.5 ug/l		
		*1,2,3-Trichlorobenzene	ND			0.5 ug/l		
		*1,2,4-Trichlorobenzene	ND			0.5 ug/l		
		*1,1,1-Trichloroethane	ND			0.5 ug/l		
		*1,1,2-Trichloroethane	ND			0.5 ug/l		
		*Trichloroethene	ND			0.5 ug/l		

Reviewed and Approved: *Patricia A. Adler* 5121

Patricia A. Adler, Chief

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TFDEQP000105

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54025		*Trichlorofluoromethane	ND			0.5 ug/l		
		*1,2,3-Trichloropropane	ND			0.5 ug/l		
		*1,2,4-Trimethylbenzene	ND			0.5 ug/l		
		*1,3,5-Trimethylbenzene	ND			0.5 ug/l		
		*Vinyl Chloride	ND			0.5 ug/l		
		*Xylenes, Total	ND			0.5 ug/l		
		*Chlorofluorobenzene(EICD)	102 %			%		
		*Chlorofluorobenzene (PID)	102 %			%		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

Patricia Adler 5/21
393

TFDEQP000106

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

May 21, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF
1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

DEBI MALONE	PR#:	EP 512828	TYPE OF SAMPLE: GROUND WATER	Submitter's ID: WJH
ADEQ/WPD/SPS/SAU	PCA:	92001	Custody: Y	
3033 N. CENTRAL	INDEX:	33300	Priority: 2	Date Sampled: 05/04/98
PHOENIX, AZ 85012	SITE CODE:			Time Sampled: 1345
	PWS NUMBER:			Date Lab Rec: 05/05/98

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report.
"ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: A small bubble was detected in the vial at the time of submission and at the time of analysis.

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54026	05/08/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
		*Benzene	ND			0.5 ug/l		
		*Bromobenzene	ND			0.5 ug/l		
		*Bromochloromethane	ND			0.5 ug/l		
		*Bromodichloromethane	ND			0.5 ug/l		
		*Bromoform	ND			0.5 ug/l		
		*Bromomethane	ND			0.5 ug/l		
		*n-Butylbenzene	ND			0.5 ug/l		
		*sec-Butylbenzene	ND			0.5 ug/l		
		*tert-Butylbenzene	ND			0.5 ug/l		
		*Carbon Tetrachloride	ND			0.5 ug/l		
		*Chlorobenzene	ND			0.5 ug/l		
		*Chloroethane	ND			0.5 ug/l		
		*Chloroform	1.2 ug/l			0.5 ug/l		
		*Chloromethane	ND			0.5 ug/l		
		*2-Chlorotoluene	ND			0.5 ug/l		
		*4-Chlorotoluene	ND			0.5 ug/l		
		*Dibromochloromethane	ND			0.5 ug/l		
		*1,2-Dibromo-3-chloro-				0.5 ug/l		
		*propane	ND					
		*1,2-Dibromoethane	ND			0.5 ug/l		
		*Dibromomethane	ND			0.5 ug/l		
		*1,2-Dichlorobenzene	ND			0.5 ug/l		
		*1,3-Dichlorobenzene	ND			0.5 ug/l		
		*1,4-Dichlorobenzene	ND			0.5 ug/l		
		*Dichlorodifluoromethane	ND			0.5 ug/l		
		*1,1-Dichloroethane	ND			0.5 ug/l		

Reviewed and Approved:

Patricia A. Adler, Chief

TFDEQP000107

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54026		*1,2-Dichloroethane	ND			0.5 ug/l		
		*1,1-Dichloroethene	ND			0.5 ug/l		
		*cis-1,2-Dichloroethene	ND			0.5 ug/l		
		*trans-1,2-Dichloroethene	ND			0.5 ug/l		
		*1,2-Dichloropropane	ND			0.5 ug/l		
		*1,3-Dichloropropane	ND			0.5 ug/l		
		*2,2-Dichloropropane	ND			0.5 ug/l		
		*1,1-Dichloropropene	ND			0.5 ug/l		
		*c-1,3-Dichloropropene	ND			0.25 ug/l		
		*t-1,3-Dichloropropene	ND			0.25 ug/l		
		*1,3 Dichloropropene, Total	ND			0.5 ug/l		
		*Ethylbenzene	ND			0.5 ug/l		
		*Hexachlorobutadiene	ND			0.5 ug/l		
		*Isopropylbenzene	ND			0.5 ug/l		
		*p-Isopropyltoluene	ND			0.5 ug/l		
		*Methylene Chloride	ND			0.5 ug/l		
		*Naphthalene	ND			0.5 ug/l		
		*n-Propylbenzene	ND			0.5 ug/l		
		*Styrene	ND			0.5 ug/l		
		*1,1,1,2-Tetrachloroethane	ND			0.5 ug/l		
		*1,1,2,2-Tetrachloroethane	ND			0.5 ug/l		
		*Tetrachloroethene	ND			0.5 ug/l		
		*Toluene	ND			0.5 ug/l		
		*1,2,3-Trichlorobenzene	ND			0.5 ug/l		
		*1,2,4-Trichlorobenzene	ND			0.5 ug/l		
		*1,1,1-Trichloroethane	ND			0.5 ug/l		
		*1,1,2-Trichloroethane	ND			0.5 ug/l		
		*Trichloroethene	ND			0.5 ug/l		

Reviewed and Approved:
Patricia A. Adler, Chief

Patricia A. Adler 5/31

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TFDEQP000108

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54026		*Trichlorofluoromethane	ND			0.5 ug/l		
		*1,2,3-Trichloropropane	ND			0.5 ug/l		
		*1,2,4-Trimethylbenzene	ND			0.5 ug/l		
		*1,3,5-Trimethylbenzene	ND			0.5 ug/l		
		*Vinyl Chloride	ND			0.5 ug/l		
		*Xylenes, Total	ND			0.5 ug/l		
		*Chlorofluorobenzene (EICD)	101 %			%		
		*Chlorofluorobenzene (PID)	103 %			%		

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

May 21, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF
1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

DEBI MALONE	PR#:	EP 512828	TYPE OF SAMPLE:	GROUND WATER	Submitter's ID:	SFA
ADEQ/WPD/SPS/SAU-	PCA:	92801	Custody:	Y	Date Sampled:	05/04/98
3833 N. CENTRAL	INDEX:	33300	Priority:	2	Time Sampled:	1415
PHOENIX, AZ 85012	SITE CODE:				Date Lab Rec:	05/05/98
	PWS NUMBER:					

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report.
"ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: A small bubble was detected in the vial at the time of submission and at the time of analysis.

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54027	05/08/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
		*Benzene	ND			0.5 ug/l		
		*Bromobenzene	ND			0.5 ug/l		
		*Bromochloromethane	ND			0.5 ug/l		
		*Bromodichloromethane	ND			0.5 ug/l		
		*Bromoform	ND			0.5 ug/l		
		*Bromomethane	ND			0.5 ug/l		
		*n-Butylbenzene	ND			0.5 ug/l		
		*sec-Butylbenzene	ND			0.5 ug/l		
		*tert-Butylbenzene	ND			0.5 ug/l		
		*Carbon Tetrachloride	ND			0.5 ug/l		
		*Chlorobenzene	ND			0.5 ug/l		
		*Chloroethane	ND			0.5 ug/l		
		*Chloroform	ND			0.5 ug/l		
		*Chloromethane	ND			0.5 ug/l		
		*2-Chlorotoluene	ND			0.5 ug/l		
		*4-Chlorotoluene	ND			0.5 ug/l		
		*Dibromochloromethane	ND			0.5 ug/l		
		*1,2-Dibromo-3-chloro-				0.5 ug/l		
		*propane	ND					
		*1,2-Dibromoethane	ND			0.5 ug/l		
		*Dibromomethane	ND			0.5 ug/l		
		*1,2-Dichlorobenzene	ND			0.5 ug/l		
		*1,3-Dichlorobenzene	ND			0.5 ug/l		
		*1,4-Dichlorobenzene	ND			0.5 ug/l		
		*Dichlorodifluoromethane	ND			0.5 ug/l		
		*1,1-Dichloroethane	ND			0.5 ug/l		

Reviewed and Approved: *Patricia A. Adler* 5/21
Patricia A. Adler, Chief
Office of Environmental and Analytical Chemistry 173

TFDEQP000110

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54027		*1,2-Dichloroethane	ND			0.5 ug/l		
		*1,1-Dichloroethene	ND			0.5 ug/l		
		*cis-1,2-Dichloroethene	ND			0.5 ug/l		
		*trans-1,2-Dichloroethene	ND			0.5 ug/l		
		*1,2-Dichloropropane	ND			0.5 ug/l		
		*1,3-Dichloropropane	ND			0.5 ug/l		
		*2,2-Dichloropropane	ND			0.5 ug/l		
		*1,1-Dichloropropene	ND			0.5 ug/l		
		*c-1,3-Dichloropropene	ND			0.25 ug/l		
		*t-1,3-Dichloropropene	ND			0.25 ug/l		
		*1,3 Dichloropropene, Total	ND			0.5 ug/l		
		*Ethylbenzene	ND			0.5 ug/l		
		*Hexachlorobutadiene	ND			0.5 ug/l		
		*Isopropylbenzene	ND			0.5 ug/l		
		*p-Isopropyltoluene	ND			0.5 ug/l		
		*Methylene Chloride	ND			0.5 ug/l		
		*Naphthalene	ND			0.5 ug/l		
		*n-Propylbenzene	ND			0.5 ug/l		
		*Styrene	ND			0.5 ug/l		
		*1,1,1,2-Tetrachloroethane	ND			0.5 ug/l		
		*1,1,2,2-Tetrachloroethane	ND			0.5 ug/l		
		*Tetrachloroethene	ND			0.5 ug/l		
		*Toluene	ND			0.5 ug/l		
		*1,2,3-Trichlorobenzene	ND			0.5 ug/l		
		*1,2,4-Trichlorobenzene	ND			0.5 ug/l		
		*1,1,1-Trichloroethane	ND			0.5 ug/l		
		*1,1,2-Trichloroethane	ND			0.5 ug/l		
		*Trichloroethene	ND			0.5 ug/l		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

Patricia A. Adler

5/21

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TFDEQP000111

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54027		*Trichlorofluoromethane	ND			0.5 ug/l		
		*1,2,3-Trichloropropane	ND			0.5 ug/l		
		*1,2,4-Trimethylbenzene	ND			0.5 ug/l		
		*1,3,5-Trimethylbenzene	ND			0.5 ug/l		
		*Vinyl Chloride	ND			0.5 ug/l		
		*Xylenes, Total	ND			0.5 ug/l		
		*Chlorofluorobenzene(EICD)	103 %			%		
		*Chlorofluorobenzene (PID)	104 %			%		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

Patricia A. Adler 5/21

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TFDEQP000112

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

May 21, 1998

BARBARA J. ERICKSON, Ph.D., BUREAU CHIEF
1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

DEBI MALONE	PR#:	EP 512828	TYPE OF SAMPLE:	GROUND WATER	Submitter's ID:	TRIP BLANK
ADEQ/WD/SPS/SAU	PCA:	92001	Custody:	Y	Date Sampled:	
3033 N. CENTRAL	INDEX:	33300	Priority:	2	Time Sampled:	
PHOENIX, AZ 85012	SITE CODE:	QA/QC			Date Lab Rec:	05/05/98
	PWS NUMBER:					

Note: All samples, including chain-of-custody, will be disposed of within 30 days unless a "Save Sample" form is received by the Chemistry Laboratory. All lab QA is within the limits defined in the SLS QA Manual unless otherwise noted in the report.
"ND" means none detected at the MRL specified. "TR" means present at less than MRL, but not quantifiable.

Comments: None

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54028	05/08/98	SDW Volatile Organic Cmpds			EPA 502.2		N/A	
		*Benzene	ND			0.5 ug/l		
		*Bromobenzene	ND			0.5 ug/l		
		*Bromochloromethane	ND			0.5 ug/l		
		*Bromodichloromethane	ND			0.5 ug/l		
		*Bromoform	ND			0.5 ug/l		
		*Bromomethane	ND			0.5 ug/l		
		*n-Butylbenzene	ND			0.5 ug/l		
		*sec-Butylbenzene	ND			0.5 ug/l		
		*tert-Butylbenzene	ND			0.5 ug/l		
		*Carbon Tetrachloride	ND			0.5 ug/l		
		*Chlorobenzene	ND			0.5 ug/l		
		*Chloroethane	ND			0.5 ug/l		
		*Chloroform	ND			0.5 ug/l		
		*Chloromethane	ND			0.5 ug/l		
		*2-Chlorotoluene	ND			0.5 ug/l		
		*4-Chlorotoluene	ND			0.5 ug/l		
		*Dibromochloromethane	ND			0.5 ug/l		
		*1,2-Dibromo-3-chloro-				0.5 ug/l		
		*propane	ND					
		*1,2-Dibromoethane	ND			0.5 ug/l		
		*Dibromomethane	ND			0.5 ug/l		
		*1,2-Dichlorobenzene	ND			0.5 ug/l		
		*1,3-Dichlorobenzene	ND			0.5 ug/l		
		*1,4-Dichlorobenzene	ND			0.5 ug/l		
		*Dichlorodifluoromethane	ND			0.5 ug/l		
		*1,1-Dichloroethane	ND			0.5 ug/l		

Reviewed and Approved: *Patricia A. Adler* 5/21
Patricia A. Adler, Chief
Office of Environmental and Analytical Chemistry

TFDEQP000113

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54028		*1,2-Dichloroethane	ND			0.5 ug/l		
		*1,1-Dichloroethene	ND			0.5 ug/l		
		*cis-1,2-Dichloroethene	ND			0.5 ug/l		
		*trans-1,2-Dichloroethene	ND			0.5 ug/l		
		*1,2-Dichloropropane	ND			0.5 ug/l		
		*1,3-Dichloropropane	ND			0.5 ug/l		
		*2,2-Dichloropropane	ND			0.5 ug/l		
		*1,1-Dichloropropene	ND			0.5 ug/l		
		*c-1,3-Dichloropropene	ND			0.25 ug/l		
		*t-1,3-Dichloropropene	ND			0.25 ug/l		
		*1,3 Dichloroproene, Total	ND			0.5 ug/l		
		*Ethylbenzene	ND			0.5 ug/l		
		*Hexachlorobutadiene	ND			0.5 ug/l		
		*Isopropylbenzene	ND			0.5 ug/l		
		*p-Isopropyltoluene	ND			0.5 ug/l		
		*Methylene Chloride	ND			0.5 ug/l		
		*Naphthalene	ND			0.5 ug/l		
		*n-Propylbenzene	ND			0.5 ug/l		
		*Styrene	ND			0.5 ug/l		
		*1,1,1,2-Tetrachloroethane	ND			0.5 ug/l		
		*1,1,2,2-Tetrachloroethane	ND			0.5 ug/l		
		*Tetrachloroethene	ND			0.5 ug/l		
		*Toluene	ND			0.5 ug/l		
		*1,2,3-Trichlorobenzene	ND			0.5 ug/l		
		*1,2,4-Trichlorobenzene	ND			0.5 ug/l		
		*1,1,1-Trichloroethane	ND			0.5 ug/l		
		*1,1,2-Trichloroethane	ND			0.5 ug/l		
		*Trichloroethene	ND			0.5 ug/l		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

Patricia A. Adler 5121

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TFDEQP000114

ARIZONA DEPARTMENT OF HEALTH SERVICES

State Laboratory

1520 West Adams, Phoenix, Arizona 85007
(602) 542-6108

-- ANALYTICAL RESULTS --

LAB #	DATE ANALYZED	COMPOUND	RESULT	STORET NUMBER	WATER METHOD REFERENCE	WATER METHOD REPORTING LMT	SOLIDS METHOD REFERENCE	SOLID METHOD REPORTING LMT
54028		*Trichlorofluoromethane	ND			0.5 ug/l		
		*1,2,3-Trichloropropane	ND			0.5 ug/l		
		*1,2,4-Trimethylbenzene	ND			0.5 ug/l		
		*1,3,5-Trimethylbenzene	ND			0.5 ug/l		
		*Vinyl Chloride	ND			0.5 ug/l		
		*Xylenes, Total	ND			0.5 ug/l		
		*Chlorofluorobenzene(EICD)	96 %			%		
		*Chlorofluorobenzene (PID)	102 %			%		

Reviewed and Approved:

Patricia A. Adler, Chief

Office of Environmental and Analytical Chemistry

Patricia A. Adler 5/21
373

TFDEQP000115



BUREAU OF LABORATORY SERVICES
1520 W. Adams Phoenix, AZ 85007
602-542-6108

REQUEST FOR CHEMICAL ANALYSES FORM

Date Received and Lab Number

PROJECT MANAGER: <u>John M. L. C.</u>	CONTINUATION FORM USED? <u>(YES)</u> No
PHONE NUMBER: <u>602-445-1111</u>	SAMPLE NAME/IDENTIFICATION/LOCATION: _____
AGENCY: <u>City of Phoenix</u>	DATE SAMPLED: _____ TIME SAMPLED: _____
OFFICE/SECTION/UNIT: <u>WDDSP / A.C.</u>	# OF CONTAINERS: _____
ADDRESS: <u>355 N. GAVIN BLVD</u>	CHAIN OF CUSTODY? <u>(YES)</u> No
CITY: <u>Phoenix</u>	CALL RESULTS? <u>(YES)</u> No
STATE: <u>AZ</u> ZIP CODE: <u>85012</u>	NEED RESULTS BY: <u>5-23-10</u>
SUBMITTER/SAMPLER: <u>J. M. L. C.</u>	
PHONE NUMBER: <u>602-445-1111</u>	

ADEQ ONLY:	SAMPLE MATRIX:
PR#: <u>11-51280</u> PCA: <u>44004</u>	<input checked="" type="checkbox"/> Ground Water <input type="checkbox"/> Food <input type="checkbox"/> Soil/Sludge
SITE CODE: <u>14-33-00</u> INDEX: <u>53-00</u>	<input type="checkbox"/> Surface Water <input type="checkbox"/> Hi Vol Filter <input type="checkbox"/> Haz Waste
Priority: <input type="checkbox"/> 1. Immediate health or environmental emergency	<input type="checkbox"/> Waste Water <input type="checkbox"/> I H Filter <input type="checkbox"/> Bulk
<input checked="" type="checkbox"/> 2. Chronic or potential health & environmental hazard	<input type="checkbox"/> Drinking Water <input type="checkbox"/> Sorbent Tube
<input type="checkbox"/> 3. Routine Surveillance	Chlorinated? Yes/No <u>(No)</u> OTHER: _____

FOR DRINKING WATER COMPLIANCE TESTING SUPPLY PWS NUMBER: _____	DWAR? Yes No
--	--------------

MULTI-PARAMETER TESTS	METALS-ALL MATRICES	SOILS / SLUDGES OR HAZARDOUS MATERIALS	INDUSTRIAL HYGIENE ANALYSES:
INORGANICS ONLY	PROCESSING NEEDED:		
SAFE DRINKING WATER	<input type="checkbox"/> F3 Dissolved (field filtered)	<input type="checkbox"/> G12 Cyanide, total	
<input type="checkbox"/> A1 All inorganics	<input type="checkbox"/> F4 Dissolved (lab filtered)	<input type="checkbox"/> G3 Flash point	
<input type="checkbox"/> A8 Lead & Copper only	<input type="checkbox"/> F2 Total recoverable (waters only)	<input type="checkbox"/> A00 Percent solids	
AMBIENT SURFACE WATER	<input type="checkbox"/> F1 Total digested (solid/sludges only)	<input type="checkbox"/> G8 Percent water (KF)	
<input type="checkbox"/> B1 All inorganics	METALS:	<input type="checkbox"/> G1 pH, corrosivity	
<input type="checkbox"/> A11 Priority pollutant metals-dissolved	<input type="checkbox"/> F5 Aluminum	<input type="checkbox"/> G2 pH, soil	
<input type="checkbox"/> A10 Priority pollutant metals-total	<input type="checkbox"/> F6 Antimony	<input type="checkbox"/> G7 Unknown ID	<input type="checkbox"/> SLC <input type="checkbox"/> LAB
INORGANICS - WATERS ONLY	<input type="checkbox"/> F7 Arsenic	TCLP METALS	SPECIAL REQUESTS:
<input type="checkbox"/> A5 Alkalinity	<input type="checkbox"/> F8 Barium	<input type="checkbox"/> H1 TCLP extraction	
<input type="checkbox"/> E11 Ammonia-nitrogen (NH3-N)	<input type="checkbox"/> F9 Beryllium	<input type="checkbox"/> H2 TC Arsenic	
<input type="checkbox"/> A6 Carbonate/Bicarbonate	<input type="checkbox"/> F10 Boron	<input type="checkbox"/> H3 TC Barium	
<input type="checkbox"/> E4 Chloride	<input type="checkbox"/> F11 Cadmium	<input type="checkbox"/> H4 TC Cadmium	
<input type="checkbox"/> E5 Conductivity, specific	<input type="checkbox"/> F12 Calcium	<input type="checkbox"/> H5 TC Chromium	
<input type="checkbox"/> E6 Cyanide amenable	<input type="checkbox"/> F32 Chromium-hexavalent	<input type="checkbox"/> H6 TC Lead	
<input type="checkbox"/> E7 Cyanide free	<input type="checkbox"/> F13 Chromium-total	<input type="checkbox"/> H7 TC Mercury	
<input type="checkbox"/> E8 Cyanide total	<input type="checkbox"/> F14 Cobalt	<input type="checkbox"/> H8 TC Selenium	
<input type="checkbox"/> E9 Fluoride	<input type="checkbox"/> F15 Copper	<input type="checkbox"/> H9 TC Silver	
<input type="checkbox"/> E10 Hardness	<input type="checkbox"/> F16 Iron	SOLVENTS	PRESERVATIVES USED:
<input type="checkbox"/> E12 Nitrate-nitrogen(NO3-N)	<input type="checkbox"/> F17 Lead	<input checked="" type="checkbox"/> I2 SDW VOCs (502.2)	<input checked="" type="checkbox"/> Cooled (Ice in chest)
<input type="checkbox"/> E13 Nitrite-nitrogen (NO2-N)	<input type="checkbox"/> F18 Magnesium	<input type="checkbox"/> I3 VOCs (601/602)	<input type="checkbox"/> Cooled (Temp: _____)
<input type="checkbox"/> E16 Nitrogen, Kjeldhal (TKN)	<input type="checkbox"/> F19 Manganese	<input type="checkbox"/> I4 BTEX only	<input checked="" type="checkbox"/> Mineral acid
<input type="checkbox"/> E15 Nitrogen-total (NO2/NO3-N)	<input type="checkbox"/> F20 Mercury	SYNTHETIC ORGANIC CHEMICALS (SOCs)	<input type="checkbox"/> Base
<input type="checkbox"/> E17 pH, water	<input type="checkbox"/> F21 Molybdenum	<input type="checkbox"/> J4 Chlorinated pesticide screen	<input type="checkbox"/> Thiosulfate
<input type="checkbox"/> E19 Phosphorus, total	<input type="checkbox"/> F30 Nickel	<input type="checkbox"/> K5 Custom GC/MS screen	<input type="checkbox"/> Ascorbic acid
<input type="checkbox"/> E20 Sulfate (SO4)	<input type="checkbox"/> F22 Potassium	<input type="checkbox"/> J10 EDB/DBCP screen	<input type="checkbox"/> Monochloroacetic acid
<input type="checkbox"/> E22 TDS	<input type="checkbox"/> F23 Selenium	<input type="checkbox"/> J9 GWPL screen	<input type="checkbox"/> Zinc acetate
<input type="checkbox"/> E23 TSS	<input type="checkbox"/> F33 Silicon	<input type="checkbox"/> J8 PCBs screen	
<input type="checkbox"/> E24 Turbidity	<input type="checkbox"/> F24 Silver	<input type="checkbox"/> J1 SDW Carbamates	
HI-VOL FILTER	<input type="checkbox"/> F25 Sodium	<input type="checkbox"/> J3 SDW Herbicides	
<input type="checkbox"/> D2 PM10	<input type="checkbox"/> F26 Thallium		
	<input type="checkbox"/> F27 Tin		
	<input type="checkbox"/> F34 Titanium		
	<input type="checkbox"/> F28 Vanadium		
	<input type="checkbox"/> F29 Zinc		
	MULTI-ELEMENT METALS SCREEN:		
	<input type="checkbox"/> G11 Soil		
	<input type="checkbox"/> A4 Water		

COMMENTS: (FOR LAB USE ONLY)

TEDEQP000116

BUREAU OF STATE LABORATORY SERVICES

1520 West Adams Street Phoenix, Arizona 85007

(602) 542-6108

5 254

REQUEST FOR CHEMICAL ANALYSIS SAMPLE CONTINUATION FORM

Note: All samples must be of the same matrix. All tests must be the same for each sample.

Laboratory's Sample Number	Sampler's Identification/ Description	Date Sampled	Time Sampled	Number of Containers	
5403	YCC-1	5-4-98	12:45p	2	*
5404	YCC-2	5-4-98	1:00p	2	+
5405	YCC-3	5-4-98	1:00p	2	**
5406	WTH	5-4-98	1:45p	2	**
5407	SEA	5-4-98	2:15p	2	+
5408	Trip Blank	N/A	N/A	2	✓

Chain of Custody Needed? ☒ Yes ☐ No
If yes, then complete lower section of document.

Comments for Lab use only: * 1st sample only } in evidence 5/5/98
* 1st sample only } in evidence 5/5/98

CHAIN OF CUSTODY RECORD

Agency Name: <div style="font-size: 1.2em; font-family: cursive;">AINEQ</div>		For Sampler's Use Only	
Sampler's Signature: <div style="font-size: 1.2em; font-family: cursive;">Deborah Malone</div>		Samples offered? <input type="checkbox"/> Yes <input type="checkbox"/> No Samples Refused? <input type="checkbox"/>	
Print Name: <div style="font-size: 1.2em; font-family: cursive;">Deborah Malone</div>		Samples offered to/refused by:	
		Signature: _____	
		Title: _____	
		Date: _____	

Relinquished by:	Received by:	Date/Time
(Signature) <div style="font-size: 1.2em; font-family: cursive;">Deborah Malone</div>	(Print name) <div style="font-size: 1.2em; font-family: cursive;">Deborah Malone</div>	(Signature) <div style="font-size: 1.2em; font-family: cursive;">[Signature]</div>
		5/5/98 2:55

Final disposal: Date disposed _____ Signature: _____

TFDEQP000117

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #1
LI USING CUSTOM RULER OR COORDINATOR™

SITE NAME: Houston International CERCLIS #: AZD983480963
AKA: Houston Fearless International SSID: 1253
ADDRESS: 655 EZOTH Street
CITY: Yuma STATE: AZ ZIP CODE: 85365
SITE REFERENCE POINT: NE Corner of East Building
USGS QUAD MAP NAME: Yuma East TOWNSHIP: 8 N(S) RANGE: 23 E(W)
SCALE: 1:24,000 MAP DATE: 1979 SECTION: 34 1/4 SW 1/4 1/4
MAP DATUM: (1927) 1983 (CIRCLE ONE) MERIDIAN: Gila-Salt River Baseline to Henderson
COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP (attach photocopy):
LONGITUDE: 114° 30' 00" LATITUDE: 32° 37' 30"
COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:
LONGITUDE: 114° 35' 00" LATITUDE: 32° 40' 00"

CALCULATIONS: LATITUDE (7.5' QUADRANGLE MAP)

- A) ALIGN THE BOTTOM OF THE SCALE WITH BOTTOM OF GRID. ALIGN THE TOP OF THE SCALE WITH THE TOP OF GRID. POSITION EDGE OF RULER OVER SITE REFERENCE POINT WHILE KEEPING TOP AND BOTTOM ALIGNED.
- B) READ TICS ON RULER AT 1- OR 0.5-SECOND INTERVALS (INTERPOLATE).
- C) EXPRESS IN MINUTES AND SECONDS (1' = 60"): 1' 27"
- D) ADD TO STARTING LATITUDE: 32° 40' 00" + 1' 27" =

SITE LATITUDE: 32° 41' 27"

CALCULATIONS: LONGITUDE (7.5' QUADRANGLE MAP)

- A) ALIGN THE BOTTOM OF THE SCALE WITH RIGHT SIDE OF GRID. ALIGN THE TOP OF THE SCALE WITH THE LEFT SIDE OF GRID. POSITION EDGE OF RULER OVER SITE REFERENCE POINT WHILE KEEPING TOP AND BOTTOM ALIGNED.
- B) READ TICS ON RULER AT 1- or 0.5-SECOND INTERVALS. (INTERPOLATE)
- C) EXPRESS IN MINUTES AND SECONDS (1' = 60"): 1' 38"
- D) ADD TO STARTING LONGITUDE: 114° 35' 00" + 1' 38" =

SITE LONGITUDE: 114° 36' 38"

INVESTIGATOR: Mary E. Hessler

DATE: 5/29/98

APPENDIX A

CERCLA ELIGIBILITY QUESTIONNAIRE

Site Name: Houston International
 City: Yuma State: AZ
 EPA ID Number: AZD98340963

I CERCLA ELIGIBILITY Yes No
 Did the facility cease operations prior to November 19, 1980? ✓
 If answer YES, STOP, facility is probably a CERCLA site.
 If answer NO, Continue to Part II

II RCRA ELIGIBILITY Yes No
 Did the facility file a RCRA Part A application? ✓
 if YES:
 1 Does the facility currently have interim status?
 2 Did the facility withdraw its Part A application?
 3 Is the facility a known or possible protective filer?
 (facility filed in error)
 4 Type of facility:
 Generator Transporter Recycler
 TSD (Treatment/Storage/Disposal)

Does the facility have a RCRA operating or post closure permit? ✓

Is the facility a late (after 11/19/80) or non-filer that has been identified by the EPA or the State? (facility did not know it needed to file under RCRA) ✓

If all answers to questions in Part II are NO, STOP, the facility is a CERCLA eligible site.

If answer to #2 or #3 is YES, STOP, the facility is a CERCLA eligible site.

If answer #2 and #3 are NO, and any OTHER answer is YES, site is RCRA, continue to Part III.

III RCRA SITES ELIGIBLE FOR NPL Yes No
 Has the facility owner filed for bankruptcy under federal or state laws? ✓
 Has the facility lost RCRA authorization to operate or shown probable unwillingness to carry out corrective action? ✓
 Is the facility a TSD that converted to a generator, transporter, or recycler facility after November 19, 1980? ✓

Potential Hazardous Waste Site Preliminary Assessment Form		Identification	
		State: <u>AZ</u>	CERCLIS Number: <u>AZ 1983480963</u>
		CERCLIS Discovery Date: <u>4/19/94</u>	
1. General Site Information			
Name: <u>Houston International</u>		Street Address: <u>655 E 20th Street</u>	
City: <u>Yuma</u>	State: <u>AZ</u>	Zip Code: <u>85365</u>	County: <u>Yuma</u>
Latitude: <u>32° 41' 27.00"</u> Longitude: <u>114° 36' 38.00"</u>		Approximate Area of Site: <u>3.96</u> Acres	Status of Site: <input type="checkbox"/> Active <input type="checkbox"/> Not Specified <input type="checkbox"/> Inactive <input type="checkbox"/> N/A (GW plume, etc.)
2. Owner/Operator Information			
Owner: <u>Houston International, Ltd</u>		Operator: <u>Houston Fearless International</u>	
Street Address: <u>PO Box 5269, Photo Products Div</u>		Street Address: <u>655 E 20th Street</u>	
City: <u>Yuma</u>		City: <u>Yuma</u>	
State: <u>AZ</u>	Zip Code: <u>85366</u>	Telephone: <u>(520) 324-9012</u>	State: <u>AZ</u>
Type of Ownership: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> Federal Agency <input type="checkbox"/> Municipal Name: _____ <input type="checkbox"/> Not Specified <input type="checkbox"/> State <input type="checkbox"/> Other: _____ <input type="checkbox"/> Indian		How Initially Identified: <input type="checkbox"/> Citizen Complaint <input checked="" type="checkbox"/> Federal Program <input type="checkbox"/> PA Petition <input type="checkbox"/> Incidental <input type="checkbox"/> State/Local Program <input type="checkbox"/> Not Specified <input type="checkbox"/> RCRA/CERCLA Notification <input type="checkbox"/> Other: _____	
3. Site Evaluator Information			
Name of Evaluator: <u>Mary Hessler</u>		Agency/Organization: <u>ADEC</u>	
Date Prepared: <u>5/28/99</u>			
Street Address: <u>3033 N Central Ave #724</u>		City: <u>Phoenix</u>	State: <u>AZ</u>
Name of EPA or State Agency Contact: <u>Mary Hessler</u>		Street Address: <u>3033 N Central Ave #724</u>	
City: <u>Phoenix</u>	State: <u>AZ</u>	Telephone: <u>(602) 207-4195</u>	
4. Site Disposition (for EPA use only)			
Emergency Response/Removal Assessment Recommendation: <input type="checkbox"/> Yes <input type="checkbox"/> No Date: _____		CERCLIS Recommendation: <input type="checkbox"/> Higher Priority SI <input type="checkbox"/> Lower Priority SI <input type="checkbox"/> NFRAP <input checked="" type="checkbox"/> RCRA <input type="checkbox"/> Other: _____ Date: _____	
Signature: _____		Name (typed): _____	
Position: _____			



Potential Hazardous Waste Site
Preliminary Assessment Form - Page 2 of 4

CERCLIS Number:

AZD983480963

5. General Site Characteristics

Predominant Land Uses Within 1 Mile of Site (check all that apply):

- ☒ Industrial ☐ Agriculture ☐ DOI
☒ Commercial ☐ Mining ☐ Other Federal Facility
☒ Residential ☐ DOD
☐ Forest/Fields ☐ DOE ☐ Other _____

Site Setting:

- ☒ Urban
☐ Suburban
☐ Rural

Years of Operation:

Beginning Year 1966(?)

Ending Year Present

☐ Unknown

Type of Site Operations (check all that apply):

☐ Manufacturing (must check subcategory)

- ☐ Lumber and Wood Products
☐ Inorganic Chemicals
☐ Plastic and/or Rubber Products
☐ Paints, Varnishes
☐ Industrial Organic Chemicals
☐ Agricultural Chemicals
(e.g., pesticides, fertilizers)
☐ Miscellaneous Chemical Products
(e.g., adhesives, explosives, ink)

- ☐ Primary Metals
☐ Metal Coating, Plating, Engraving
☐ Metal Forging, Stamping
☐ Fabricated Structural Metal Products
☐ Electronic Equipment

☒ Other Manufacturing Film

☐ Mining

- ☐ Metals
☐ Coal
☐ Oil and Gas
☐ Non-metallic Minerals

☐ Retail

- ☐ Recycling
☐ Junk/Salvage Yard
☐ Municipal Landfill

☐ Other Landfill

☐ DOD

☐ DOE

☐ DOI

☐ Other Federal Facility _____

☐ RCRA

☐ Treatment, Storage, or Disposal

☐ Large Quantity Generator

☐ Small Quantity Generator

☐ Subtitle D

☐ Municipal

☐ Industrial

☐ "Converter"

☐ "Protective Filter"

☐ "Non- or Late Filter"

☐ Not Specified

☒ Other Film Processing

Waste Generated:

- ☒ Onsite
☐ Offsite
☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☒ Present Owner
☐ Former Owner
☐ Present & Former Owner
☐ Unauthorized
☐ Unknown

Waste Accessible to the Public:

- ☒ Yes
☐ No

Distance to Nearest Dwelling,
School, or Workplace:

0 Feet

6. Waste Characteristics Information

Source Type:
(check all that apply)

- ☐ Landfill
☐ Surface Impoundment
☐ Drums
☒ Tanks and Non-Drum Containers
☐ Chemical Waste Pile
☐ Scrap Metal or Junk Pile
☐ Tailings Pile
☐ Trash Pile (open dump)
☐ Land Treatment
☐ Contaminated Ground Water Plume
(unidentified source)
☐ Contaminated Surface Water/Sediment
(unidentified source)
☒ Contaminated Soil
☐ Other _____
☐ No Sources

Source Waste Quantity:
(include units)

1,000 Gall

3,000 square foot

Tier^{*}:

V

A

General Types of Waste (check all that apply)

- ☒ Metals ☐ Pesticides/Herbicides
☒ Organics ☐ Acids/Bases
☐ Inorganics ☐ Oily Waste
☒ Solvents ☐ Municipal Waste
☐ Paints/Pigments ☐ Mining Waste
☐ Laboratory/Hospital Waste ☐ Explosives
☐ Radioactive Waste ☐ Other _____
☐ Construction/Demolition
Waste

Physical State of Waste as Deposited (check all that
apply):

- ☐ Solid ☐ Sludge ☐ Powder
☒ Liquid ☐ Gas

^{*} C = Constituent, W = Wastestream, V = Volume, A = Area



Potential Hazardous Waste Site
Preliminary Assessment Form - Page 3 of 4

CERCLIS Number:

AZ0983480963

7. Ground Water Pathway

<p>Is Ground Water Used for Drinking Water Within 4 Miles:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Type of Drinking Water Wells Within 4 Miles (check all that apply):</p> <p><input type="checkbox"/> Municipal <input checked="" type="checkbox"/> Private <input type="checkbox"/> None</p>	<p>Is There a Suspected Release to Ground Water:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Have Primary Target Drinking Water Wells Been Identified:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, Enter Primary Target Population:</p> <p>_____ People</p>	<p>List Secondary Target Population Served by Ground Water Withdrawn From:</p> <table><tr><td>0 - 1/4 Mile</td><td>3</td></tr><tr><td>> 1/4 - 1/2 Mile</td><td>3</td></tr><tr><td>> 1/2 - 1 Mile</td><td>26</td></tr><tr><td>> 1 - 2 Miles</td><td>146</td></tr><tr><td>> 2 - 3 Miles</td><td>66</td></tr><tr><td>> 3 - 4 Miles</td><td>674</td></tr><tr><td>Total Within 4 Miles</td><td>1,018</td></tr></table>	0 - 1/4 Mile	3	> 1/4 - 1/2 Mile	3	> 1/2 - 1 Mile	26	> 1 - 2 Miles	146	> 2 - 3 Miles	66	> 3 - 4 Miles	674	Total Within 4 Miles	1,018
0 - 1/4 Mile	3															
> 1/4 - 1/2 Mile	3															
> 1/2 - 1 Mile	26															
> 1 - 2 Miles	146															
> 2 - 3 Miles	66															
> 3 - 4 Miles	674															
Total Within 4 Miles	1,018															
<p>Depth to Shallowest Aquifer:</p> <p>74 Feet</p> <p>Karst Terrain/Aquifer Present:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Nearest Designated Wellhead Protection Area:</p> <p><input type="checkbox"/> Underlies Site <input type="checkbox"/> > 0 - 4 Miles <input checked="" type="checkbox"/> None Within 4 Miles</p>															

8. Surface Water Pathway

<p>Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):</p> <p><input type="checkbox"/> Stream <input type="checkbox"/> River <input type="checkbox"/> Pond <input type="checkbox"/> Lake <input type="checkbox"/> Bay <input type="checkbox"/> Ocean <input checked="" type="checkbox"/> Other <u>Cornell</u></p>	<p>Shortest Overland Distance From Any Source to Surface Water:</p> <p>_____ Feet</p> <p>1 1/2 Miles</p>																				
<p>Is There a Suspected Release to Surface Water:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Site is Located in:</p> <p><input type="checkbox"/> Annual - 10 yr Floodplain <input type="checkbox"/> > 10 yr - 100 yr Floodplain <input checked="" type="checkbox"/> > 100 yr - 500 yr Floodplain <input type="checkbox"/> > 500 yr Floodplain</p>																				
<p>Drinking Water Intakes Located Along the Surface Water Migration Path:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Have Primary Target Drinking Water Intakes Been Identified:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, Enter Population Served by Primary Target Intakes:</p> <p>_____ People</p>	<p>List All Secondary Target Drinking Water Intakes:</p> <table><thead><tr><th>Name</th><th>Water Body</th><th>Flow (cfs)</th><th>Population Served</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table> <p>Total within 15 Miles _____</p>	Name	Water Body	Flow (cfs)	Population Served																
Name	Water Body	Flow (cfs)	Population Served																		
<p>Fisheries Located Along the Surface Water Migration Path:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Have Primary Target Fisheries Been Identified:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>List All Secondary Target Fisheries:</p> <table><thead><tr><th>Water Body/Fishery Name</th><th>Flow (cfs)</th></tr></thead><tbody><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></tbody></table>	Water Body/Fishery Name	Flow (cfs)																		
Water Body/Fishery Name	Flow (cfs)																				



Potential Hazardous Waste Site
Preliminary Assessment Form - Page 4 of 4

CERCLIS Number:

A3D983480963

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

- ☐ Yes
☒ No

Have Primary Target Wetlands Been Identified:

- ☐ Yes
☒ No

List Secondary Target Wetlands:

Water Body	Flow (cfs)	Frontage Miles

Other Sensitive Environments Located Along the Surface Water Migration Path:

- ☐ Yes
☒ No

Have Primary Target Sensitive Environments Been Identified:

- ☐ Yes
☒ No

List Secondary Target Sensitive Environments:

Water Body	Flow (cfs)	Sensitive Environment Type

9. Soil Exposure Pathway

Are People Occupying Residences or
Attending School or Daycare on or Within 200
Feet of Areas of Known or Suspected
Contamination:

- ☐ Yes
☒ No

If Yes, Enter Total Resident Population:

_____ People

Number of Workers Onsite:

- ☐ None
☒ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Have Terrestrial Sensitive Environments Been Identified on
or Within 200 Feet of Areas of Known or Suspected
Contamination:

- ☐ Yes
☒ No

If Yes, List Each Terrestrial Sensitive Environment:

10. Air Pathway

Is There a Suspected Release to Air:

- ☒ Yes
☐ No

Enter Total Population on or Within:

Onsite

30

0 - ¼ Mile

639

> ¼ - ½ Mile

2,131

> ½ - 1 Mile

8,483

> 1 - 2 Miles

15,942

> 2 - 3 Miles

20,704

> 3 - 4 Miles

21,997

Total Within 4 Miles

69,926

Wetlands Located Within 4 Miles of the Site:

- ☐ Yes
☒ No

Other Sensitive Environments Located Within 4 Miles of the Site:

- ☒ Yes
☐ No

List All Sensitive Environments Within ¼ Mile of the Site:

Distance	Sensitive Environment Type/Wetlands Area (acres)
Onsite	None
0 - ¼ Mile	
> ¼ - ½ Mile	

Onsite

None

0 - ¼ Mile

> ¼ - ½ Mile

EPA REGION IX SITE SCREENING CHECKLIST

This review checklist is to be used by individual site screening staff when reviewing sites which have been brought to the attention of EPA or the State. Each site is reviewed on the merits of the discovery documentation and additional information gathered during the screening process. The guiding principal in evaluating a given site is to use common sense in assessing the information and subsequently presenting the site and its known hazardous potential to the SST.

1.0 GENERAL INSTRUCTIONS

Complete Section 1 for the site using readily available information and contacting appropriate individuals. A contact log (Attachment A) should be used to document information gained through correspondence, interviews, and telephone calls. Handwriting is acceptable if it is legible. Attach extra pages if necessary.

1.1 Site Information

Site Name: Houston International
Alias Name: Houston Fearless International
Site Street Address: 655 E. 20th Street
City, County, State: Yuma, Yuma, Arizona 85365
EPA ID Number: AZD983480963
Site Screener: Mary Hessler Date: May 29, 1998
Date of Discovery: April 19, 1994
Discovery Vehicle:

<input type="checkbox"/> County Referral	<input type="checkbox"/> State Referral	<input type="checkbox"/> Lawsuit
<input type="checkbox"/> Citizen Petition	<input type="checkbox"/> State PA/SI Grant	<input type="checkbox"/> Removal
<input type="checkbox"/> RCRA Referral	<input type="checkbox"/> Nonemergency Release Report	<input type="checkbox"/> Newspaper
		<input checked="" type="checkbox"/> Other - EPA Border Initiative Program

Is this site part of an NPL site? ☐ Yes ☒ No

CERCLIS Status: ☒ Discovery PA ☐ NFRAP
☐ Other (specify): _____ ☐ SI ☐ Not in CERCLIS

State oversight role:

PA/SI Cooperative Agreement ☒ Yes ☐ No ☐ Not applicable

Cooperative Agreement Number: V999705-01-0

EPA Project Officer: Jere Johnson

RCRA Status: ☒ Generator ☐ Transporter
☐ TSDF ☐ Not listed in RCRIS

In a State Database(s)? ☒ Yes ☐ No If yes, specify. ACIDS ID # 1253

If the answer to question 1 is "No", or if the answer to any question of 2 through 8 is "Yes", the site is ineligible for CERCLA evaluation and the decision at the bottom of this page is "No Further Action Under CERCLA". The answers to questions 9 through 16 should be used to identify sites that may not be appropriate for CERCLA evaluation without further justification. If a question cannot be answered, explain why in the Comments section below.

- Comments: _____

☒ Go to Section 2

2.0 TECHNICAL INFORMATION

This section contains information about site's operational history and environmental sampling. Complete the following section by filling in the blanks or checking the appropriate boxes. If a question cannot be answered, explain why. If a drive-by is performed, complete Attachment B.

2.1 Operational History

1a. List present site owner(s) and operator(s). [Include dates of ownership]:

Houston International, Ltd. (Owner), Late 1960s - Present

Houston Fearless International (Operator), 1998

Yuma Furniture (Warehouse) (Operator), 1998

J. Marcel (Warehouse) (Operator), 1998

Exercise Studio (Operator), 1998

1b. Are hazardous substances presently on site?

☒ Yes ☐ No

If yes, how and where are substances stored and used?

Industroclean used in solvent cleaning tank. Reportedly, there is no sludge, and solvent is added to the tank as needed. Industroclean contains ethylene glycol monobutyl ether.

Lacquer thinner is also used to degrease parts.

Two 500-gallon tanks of purge water are also stored onsite. Purge water is contaminated with PCE.

2a. List historic site owner(s) and operator(s). [Include dates of ownership]:

Houston Photo Products (Operator), 1966(?) - 1986

Houston International (Operator), 1987 - 1997(?)

Dreamland Bedding and Factory Showroom (Operator), 1991

2b. Were hazardous substances present on site in the past?

☒ Yes ☐ No

If yes, how and where were substances stored and used?

Tetrachloroethylene(PCE) was used in a vapor degreaser from 1975 until the early 1990s. In 1978, 15 to 20 gallons of PCE were discharged to an underground tank that drains to the ground. In 1994, Houston International's contractor collected two wastewater samples. One of the samples contained 7.9 micrograms per liter of PCE.

Methyl Ethyl Ketone was used for solvent welding. MEK was also applied to towels and used to clean parts. Waste towels were stored in closed containers.

Standard photographic chemicals, which contain silver, were used for film processing. In 1991, Houston International (HI) estimated that 275 to 300 gallons of photographic chemicals and 15,000 to 18,000 gallons of water were used each week. Wastewater was discharged to a 1,000-gallon underground tank. This tank was pumped to the ground when full. In 1994, HI estimated that approximately 500 gallons of photo chemicals and 12,000 to 13,000 gallons of water were used per month. Wastewater was passed through silver recovery units prior to discharge.

Nitric acid was also used at the site in the past.

Additional comments: _____

2.2 Contaminant(s):

List any hazardous substances, pollutants, or contaminants that have been identified at the site and indicate whether they have been quantified (e.g., by sampling).

	<u>Suspected</u>	<u>Identified</u>	<u>Quantified</u>	<u>Comments</u>
<input type="checkbox"/> Ammonia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Arsenic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Beryllium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Bromodichloromethane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Bromoform	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Cadmium	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Carbon tetrachloride	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Chloroform	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Chromium (+3 or +6)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Copper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Cyanide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Dibromochloromethane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Dichloroethene, 1,1-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Dioxin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Ethyl benzene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Mercury	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Methylene chloride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Nickel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> P-Dichlorobenzene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Pentachlorophenol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Phenol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Polychlorinated biphenyls (PCBs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Polycyclic aromatic hydrocarbons (PAHs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Toluene	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Trichloroethylene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Vinyl chloride	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Xylene	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Zinc	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Other chemicals (List): Barium	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Chloroethane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Copper	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Manganese	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Methyl Ethyl Ketone	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Selenium	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Silver	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Tetrachloroethylene (PCE)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments: Several metals (barium, chromium, cadmium, copper, lead, manganese, nickel, silver, and zinc) were detected in soil samples collected at the site. Some of these metals (barium, cadmium, chromium, lead, manganese, and zinc) were also detected in groundwater samples. Selenium was detected in groundwater samples, but not in soil samples. Since no background samples are available, the significance of these results is unclear. Toluene and tetrachloroethylene (PCE) have been detected in both soil and groundwater samples. Chloroform and xylenes were detected in soil samples only. In addition, tetrachloroethylene (PCE), methylene chloride, bromodichloroethane, bromoform, chloroethane, and dibromochloromethane were detected in wastewater samples in 1994.

2.3 Has a release as defined in CERCLA Section 101(22) occurred?

☒ Yes

☐ Suspected

☐ No

Identify the source(s) of the release or suspected release (e.g., drums, landfill, surface impoundment, waste pile, etc.): Underground wastewater collection tank discharged wastewater to the ground.

2.4 Pathway(s) of contaminant migration:

☒ Air

☒ Groundwater

☐ Surface Water

☒ Soil

Briefly describe any identified pathway: Groundwater: PCE has been detected in both soil and groundwater. However, there are no known active drinking water wells within one mile downgradient of the site. The nearest wells are used for irrigation and industrial purposes. These wells were sampled, and no VOCs were detected. Soil: Metals are present in onsite soils. However, no background samples are available for comparison. In addition, offsite soils have not been sampled. The offsite stained soil is in a vacant lot. Air: Onsite and offsite stained soils may become airborne and migrate to nearby properties.

2.5 Sampling History

1. Has sampling been conducted? ☒ Yes ☐ No

2. If environmental sampling has been conducted, use the Sampling Event Summary Table, Attachment C, to record the information.

2.6 Additional Information

Use this space to present additional information that may be used to support site screening decisions.

3.0 REMOVAL ASSESSMENT CRITERIA — NCP EVALUATION

Use the following criteria to determine if the site should be referred to EPA's Removal Section. If the answer to any question is yes, get EPA concurrence for the decision. If all answers are no, go to Section 4. If a question cannot be answered, explain why in the Comments section below.

- | | | |
|---|---|--|
| 1. Is there actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances, pollutants, or contaminants? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Is there actual or potential contamination of drinking supplies or sensitive ecosystems? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Are hazardous substances, pollutants, or contaminants in drums, barrels, tanks, or other bulk storage containers which may pose a threat of release? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Are there high levels of hazardous substances, pollutants, or contaminants in soils largely at or near the surface, which may migrate and affect populations or the environment? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Could weather conditions cause hazardous substances, pollutants, or contaminants to migrate or be released? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 6. Is there a threat of fire or explosion? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 7. Are there appropriate Federal or State response mechanisms to respond to the release or potential release? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8. Are there other situations or factors which may pose threats to public health, welfare, or the environment? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 9. < Reserved > | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 10. For the situation where there appears to be primarily a groundwater contamination problem, is there a near-surface source which can be removed? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

Comments: 1.2 - The Yuma area includes habitat for the flat-tailed horned lizard, a state-listed endangered species. The site is adjacent to vacant desert land. Wastewater was discharged from the site to this vacant land. No soil sampling has been conducted on the vacant land. 3. 4. 10 - There is one underground collection tank onsite. This tank held contaminated wastewater, and then discharged it to the ground. The tank is no longer used. However, contaminants could still be present and could leak to surrounding soils. Also, there are two septic tanks onsite. These septic tanks have never been investigated. In addition, there are offsite stained soils that have not been sampled. Metals are the contaminants of concern in the offsite soils. If metals concentrations exceed the Arizona Soil Remediation Levels (SRLs), then a removal should be done.

- DECISION:**
- | | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Removal Assessment
Go to Section 7 |
| <input type="checkbox"/> | Expanded Removal Assessment
Go to Section 7 |
| <input type="checkbox"/> | Not Appropriate For Removal Action
Go to Section 4 |

Assign a high, medium, or low priority category to each of the following factors and then use these factors to help make preliminary recommendations in Section 5. A high priority influence may indicate that a Preliminary Assessment should be conducted as a high priority without regard to other screening factors.

Other Influences	High	Medium	Low
1. Site remedial/removal history	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Some	<input type="checkbox"/> All wastes removed
2. Regulatory involvement	<input checked="" type="checkbox"/> Other agency currently active	<input type="checkbox"/> Somewhat involved	<input type="checkbox"/> No involvement
3. Environmental justice	<input checked="" type="checkbox"/> Site is in low income/minority neighborhood		<input type="checkbox"/> Site is not in low income or minority neighborhood
4. Brownfields/Redevelopment	<input type="checkbox"/> Possible candidate		<input checked="" type="checkbox"/> Not a likely candidate
5. Political attention	<input type="checkbox"/> Very visible/vocal	<input type="checkbox"/> Some involvement	<input checked="" type="checkbox"/> None
6. Public attention	<input type="checkbox"/> Very visible/vocal	<input type="checkbox"/> Some involvement	<input checked="" type="checkbox"/> None
7. Remedial Costs	<input checked="" type="checkbox"/> Likely very expensive or difficult		<input type="checkbox"/> Easy and relatively cheap

Comments:

2 - The ADEQ Hazardous Waste Compliance Unit is currently active at the site.

OTHER INFLUENCING FACTORS CATEGORY:

HIGH

MEDIUM

LOW

5.0 PRELIMINARY RECOMMENDATIONS

Use the information in sections 1 through 4 and professional judgement to make a preliminary determination of the need for further investigation of the actual or potential threat posed by hazardous substance contamination at this site. Select one of the following options for site disposition.

5.1. Prioritize for Site Assessment

Further site assessment appears warranted.

5.1.a. Prioritize for Site Assessment under State Lead [X]

Complete Section 6 to determine if site should be high, medium, or low priority for further assessment.

5.1.b. Prioritize for Site Assessment under EPA Cooperative Agreement [X]

Complete Section 6 to determine if site should be high, medium, or low priority for further assessment.

5.2. High Priority Site Assessment []

The influencing factors in Section 4 suggest that further site assessment be conducted as a high priority. Go to Section 7.

5.3. Referral To Hazardous Waste Management Program []

Recommend for sites that can be remediated as a Corrective Action under H&S Code 25187. Go to Section 7.

5.4. Referral To Water Quality Program []

Recommend referral to Water Quality Control Program for sites that fall under its authority and for which it is providing oversight of investigation/remediation. Go to Section 7.

5.5 Referral to another agency []

Recommend to another agency for sites where it is providing or has provided oversight. Go to Section 7.

5.6 No Further Action Under CERCLA []

Recommend No Further Action for sites where documented contamination is not significant by EPA standards and the presence of greater contamination is unlikely. Go to Section 7.

Comments: The site is a candidate for removal action. The main concerns are (1) the underground tank may still contain contaminants and may need to be removed and (2) the offsite stained soils are in a vacant lot and accessible to the public. The soil may need to be removed if metals concentrations exceed SRLs.

6.0 SITE PRIORITIZATION WORKSHEET

Site Name: Houston International Site Screener: Mary Hessler
 EPA ID Number: AZD983480963 Date: _____
 Site Assessment Phase: Preliminary Assessment

The following risk-based criteria should be used as a guideline to assist in the prioritization of pre-CERCLIS and CERCLIS sites. These guidelines can be used in various stages of assessment. When interpreting the information provided below, one should understand that conservative assumptions were made where information is lacking and the risk value is subjective.

Site screeners should complete this form by using the categories as guidelines. The "Notes" sections should be used to document assumptions made, data sources, or other information pertinent to determining risk prioritization.

6.1 HAZARDS IDENTIFICATION

Complete the sections below for the suspected contaminants of greatest concern. Use SCDMs as a reference for assigning hazardous substance risk category. Assign a Hazard Factor for each hazardous substance evaluated and then assign an Overall Hazard Factor Value combining the separate Hazard Factors. If only one hazardous substance is evaluated, the Overall Hazard Factor Value will be the same as the Hazard Factor for A.

HAZARDOUS SUBSTANCE A: <u>Tetrachloroethylene</u>			
Estimate the risk associated with the hazard properties for this hazardous substance.			
Hazard Property	HIGH	MEDIUM	LOW
Quantity	<input checked="" type="checkbox"/> $\geq 10,000$ lbs; or or 5 mil. gals; or or 25,000 yds ³	<input type="checkbox"/> $< 10,000$ lbs and ≥ 100 lbs; or < 5 mil. gals and $\geq 50,000$ gals; or $< 25,000$ yds ³ and ≥ 250 yds ³	<input type="checkbox"/> < 100 lbs. or 50,000 gals. or 250 yds ³
Toxicity	<input type="checkbox"/> $\geq 10,000$	<input checked="" type="checkbox"/> $< 10,000$ and ≥ 100	<input type="checkbox"/> < 100
Mobility	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> < 1 and ≥ 0.001	<input type="checkbox"/> < 0.001
Bioavailability	<input type="checkbox"/> $\geq 1,000$	<input checked="" type="checkbox"/> $< 1,000$ and ≥ 10	<input type="checkbox"/> < 10
Concentration (if known)	<input checked="" type="checkbox"/> \geq benchmark = _____	<input type="checkbox"/> near benchmark = _____	<input type="checkbox"/> low relative to benchmark = _____
Level of Containment	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Partial	<input type="checkbox"/> Full
Hazard Factor for A	HIGH	MEDIUM	LOW

Comments: Quantity - The film processing operation used 15,000 gallons of water per week at one point. Thus, it is projected that millions of gallons of wastewater were generated each year. Mobility - PCE is already in groundwater. Concentration - PCE concentrations exceed the EPA Maximum Contaminant Level of 5 micrograms per liter.

HAZARDOUS SUBSTANCE B: Silver

Estimate the risk associated with the hazard properties for this hazardous substance.

Hazard Property	HIGH	MEDIUM	LOW
Quantity	<input checked="" type="checkbox"/> $\geq 10,000$ lbs; or or 5 mil. gals; or or 25,000 yds ³	<input type="checkbox"/> $< 10,000$ lbs and ≥ 100 lbs; or < 5 mil. gals and $\geq 50,000$ gals; or $< 25,000$ yds ³ and ≥ 250 yds ³	<input type="checkbox"/> < 100 lbs. or 50,000 gals. or 250 yds ³
Toxicity	<input type="checkbox"/> $\geq 10,000$	<input checked="" type="checkbox"/> $< 10,000$ and ≥ 100	<input type="checkbox"/> < 100
Mobility	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> < 1 and ≥ 0.001	<input type="checkbox"/> < 0.001
Bioavailability	<input type="checkbox"/> $\geq 1,000$	<input checked="" type="checkbox"/> $< 1,000$ and ≥ 10	<input type="checkbox"/> < 10
Concentration (if known)	<input type="checkbox"/> \geq benchmark =	<input type="checkbox"/> near benchmark =	<input checked="" type="checkbox"/> low relative to benchmark =
Level of Containment	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Partial	<input type="checkbox"/> Full
Hazard Factor for B	HIGH	MEDIUM	LOW

Comments: Quantity - The film processing operation generated thousands of gallons of wastewater each week. It is projected that millions of gallons of wastewater were generated each year. Mobility - The mobility in groundwater is 0.01. The air mobility of particulates is 0.02 in the Yuma area. Concentration - The concentrations are below the Arizona Soil Remediation Level of 380 milligrams per kilogram. Silver has not been detected in the groundwater.

OVERALL HAZARD FACTOR VALUE: HIGH MEDIUM LOW

6.2 VULNERABILITY ANALYSIS

Assign a risk category to each of the following vulnerability factors. Assign an Overall Vulnerability Factor Value for the site based on the dominant vulnerability risk categories.

Vulnerability Factor	High	Medium	Low
1. Environmental Setting - Land use within 0.5 miles of the site	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Agricultural/ Commercial	<input type="checkbox"/> Industrial
2. Sensitive Populations - Children, the elderly, or groups with poor health live:	<input checked="" type="checkbox"/> Within 0.25 miles of site		<input type="checkbox"/> More than 0.25 miles from site
3. Population Density - Evaluate within 0.5 miles.	<input checked="" type="checkbox"/> Dense	<input type="checkbox"/> Moderate	<input type="checkbox"/> Sparse
4. Groundwater Use - Wells used for drinking water are located:	<input type="checkbox"/> Within 0.5 miles of the site	<input type="checkbox"/> 0.5 to 2 miles from site	<input checked="" type="checkbox"/> More than 2 miles from site
5. Groundwater Contamination - Evaluate groundwater contamination within 2 miles of the site.	<input checked="" type="checkbox"/> Known	<input type="checkbox"/> Possible	<input type="checkbox"/> Not likely
6. Surface Water Location - Distance to nearest surface water body. If used for drinking water or known to be contaminated, bump to next higher risk category.	<input type="checkbox"/> Within 0.5 miles of the site	<input checked="" type="checkbox"/> 0.5 to 2 miles from site	<input type="checkbox"/> More than 2 miles from site
7. Sensitive Habitats - Distance to nearest sensitive habitat. If known or projected contamination within habitat, bump to next higher risk category.	<input checked="" type="checkbox"/> Within 0.5 miles of the site	<input type="checkbox"/> 0.5 to 2 miles from site	<input type="checkbox"/> More than 2 miles from site
8. Soil/Air Contamination - Evaluate the potential for exposure to individuals from contaminated soil or air releases.	<input type="checkbox"/> Documented or probable exposure	<input checked="" type="checkbox"/> Potential for exposure	<input type="checkbox"/> Exposure not likely
9. Sampling Data Confidence - Evaluate the quality of any data available for the site.	<input type="checkbox"/> No oversight; no QA/QC; no data	<input checked="" type="checkbox"/> Regulatory oversight; EPA methods; partial or unknown QA/QC	<input type="checkbox"/> Regulatory oversight; EPA methods; QA/QC validation

Notes: 1 - There is a residential area west of Arizona Avenue. 2 - There are three schools ¼ mile south of the site. There is a day care center approximately ¼ mile from the site at 20th Street and Arizona Avenue. 4 - Groundwater is not used for drinking water in the Yuma area. 7 - The Yuma area includes habitat for the flat-tailed horned lizard, a state-listed endangered species. 8 - Onsite stained soils were sampled, and metals were present below the Arizona Soil Remediation Levels. Offsite soils have not been sampled. Due to the arid climate in the Yuma area, soils become airborne and can be carried to nearby properties. 9 - Some of the early sampling had little or no QA/QC. The most recent data, however, were analyzed by EPA methods with oversight by the ADEQ Hazardous Waste Section. However, no data validation has been conducted.

OVERALL VULNERABILITY FACTOR VALUE: HIGH

MEDIUM

LOW

Assign a Site Priority Level based on the dominant risk categories given for the hazard and vulnerability factor values.

HAZARD FACTOR VALUE	<u>HIGH</u>	MEDIUM	LOW
VULNERABILITY FACTOR VALUE	HIGH	<u>MEDIUM</u>	LOW
SITE PRIORITY LEVEL	HIGH	<u>MEDIUM</u>	LOW

Additional Comments: There are no residents onsite or on the adjacent vacant lot. The groundwater is not used for drinking water in the area. For these reasons, it is anticipated that, if a removal assessment is completed, the site will not merit further EPA attention.

7.0 SITE RECOMMENDATION

Site Name: Houston International
EPA ID Number: AZD983480963

Site Screener: Mary Hessler
Date: _____

7.1. Futher Site Assessment Warranted

7.1.a Under State Lead

High Priority ☐ Medium Priority ☐ Low Priority ☐

Recommend further site investigation under State lead.

7.1.b Under EPA Cooperative Agreement

High Priority ☐ Medium Priority ☐ Low Priority ☐

Recommend further site investigation under the EPA cooperative agreement.

7.2. Recommended for Removal Assessment ☐ or Expanded Removal Assessment ☐

Recommend referral to EPA's Removal Section.

7.3. Referral To Hazardous Waste Management Program ☐

Recommend hazardous waste management program for sites that can be remediated as a Corrective Action under H&S Code 25187.

7.4 Referral to Water Quality Control Program ☐

Recommend Water Quality Program referral for sites that fall under its authority and for which it is providing oversight of investigation/remediation.

7.5 Referral to another agency ☐

Recommend referral to another agency for sites where it is providing or has provided oversight.

7.6 No Futher Action Under CERCLA ☐

Recommend No Further Action for sites where documented contamination is not significant by EPA standards and the presence of greater contamination is unlikely.

Comments: ADEQ recommends that the EPA consider conducting a removal action at this site. Removal of the underground tank may prevent a continuing release to groundwater.

EPA CONCURRENCE: _____
signature date

20th Street and Factor Avenue

Water Quality Assurance Revolving Fund (WQARF) Site

Boundaries:

The 20th Street and Factor Avenue Site (Site) is located approximately one-half mile south of 16th Street (U.S. Highway 95) and approximately three-quarters of a mile east of Fourth Avenue (Interstate 8 Business Loop) in Yuma, Arizona.

The plume boundaries depicted on the Site map represent the Arizona Department of Environmental Quality's (ADEQ) interpretation of data available at the time the map was constructed. The map is intended to provide the public with basic information as to the estimated extent of known contamination as of the date of map production. The actual extent of contamination may be different. Therefore, the plume may change in the future as new information becomes available.

Site Status Update:

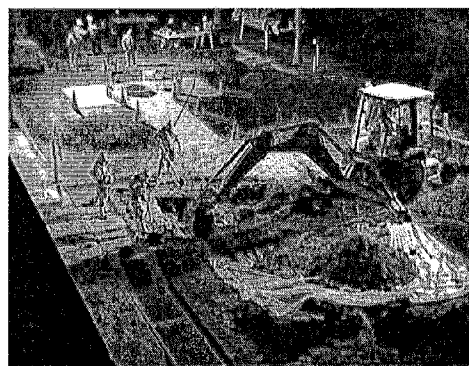
ADEQ continues to investigate the Site to identify the extent of the groundwater contamination. A shallow soil vapor investigation was performed to help identify potential source areas. Additional soil vapor and groundwater sampling will be conducted during the first quarter of 2011.

Community Involvement Activities:

ADEQ distributes fact sheets and public notices to the nearby community when significant events occur.

Site History:

1966-1988: Houston Photo Products (HPP) operated a motion picture laboratory and a facility which also manufactured photographic film and paper processing equipment for the photo industry. In 1988, HPP changed its name to Houston International, Limited (HIL). The chemicals used at the facility include standard photographic chemicals, namely tetrachloroethene (PCE), small amounts of various other photographic chemicals and water. The wastewater at the facility was treated to recover silver. The treated wastewater was disposed in three ways:



**Uncovering a Septic System at the
Houston Facility**

- 1) Some of the wastewater was discharged to a 1,000-gallon concrete underground sump on the east side of the property. When this sump was full, it was discharged to a disposal pond on the east side of the property. Wastewater from this disposal pond overflowed onto the adjacent property to the east of the Site.
- 2) Wastewater was used to water plants in landscaped areas at the front of the building.
- 3) Wastewater was discharged to the ground in the southwest portion of the property by a sprinkler system and later to a sump.

Beginning in 1975, HPP/HIL used PCE to clean stainless steel machine parts. On one occasion in 1978, PCE was discharged to the 1,000-gallon concrete underground tank.

1990-1995: HIL reported a leaking tank to the ADEQ Underground Storage Tanks (UST) Section. The ADEQ UST Section referred the facility to the ADEQ Water Pollution Compliance Unit. Consultants for HIL conducted soil and groundwater investigations under the oversight of the Water Pollution Compliance Unit.

In 1990, PCE and metals were detected in on-site soils. Subsequent soil investigations indicated that PCE was present in soil at concentrations below the Arizona residential Soil Remediation Level (SRL) of 53,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$). In 1991, HIL began to use Industroclean (which contains ethylene glycol monobutyl ether) in place of PCE. Consultants for HIL installed three groundwater monitor wells (MW-1, MW-2, and MW-3) and performed groundwater sampling in 1993. The PCE concentrations exceeded the Arizona Aquifer Water Quality Standard (AWQS) for PCE of 5.0 micrograms per liter ($\mu\text{g}/\text{l}$).

Also in 1993, the ADEQ Hazardous Waste Section (HWS) inspected the facility, and in 1994, HIL and the ADEQ HWS entered into a compliance order. Consultants for HIL conducted additional soil and groundwater investigations under the compliance order. In 1994, a soil vapor survey was conducted. Elevated concentrations of PCE were present in the soil vapor samples. Trichloroethene (TCE) and 1,1,1-trichloroethane were also detected in soil vapor samples. HIL moved its motion picture laboratory operation off-site. The facility is currently occupied by the offices of Houston Film Labs and a dance studio. This operation does not generate wastewater.

1996: One nested groundwater monitoring well (MW-102) and one upgradient monitor well (MW-101) were installed at the Site. The maximum PCE concentration detected was 520 $\mu\text{g}/\text{l}$ in MW-2 at 140 to 150 feet below ground surface (bgs).

1998-2000: In 1998, the ADEQ Hazardous Waste Section referred the facility to the ADEQ Superfund Programs Section, Site Assessment Unit. The Site was placed on the WQARF Registry in March 2000 with a score of 31 out of a possible 120.

2001: ADEQ began Site investigation activities at the facility. A review of the Material Safety Data Sheets of the chemicals used at the facility indicated that two cyanide compounds, potassium ferriocyanide and sodium thiocyanate, were also used at the facility. Both of the cyanide compounds used at the facility can degrade to hydrogen cyanide in sunlight or in an

environment with a near neutral pH. Analyses of wastewater in the septic systems indicated that elevated cyanide concentrations were present in the wastewater disposal system. Cyanide was also detected in groundwater samples above the AWQS of 0.2 milligrams per liter (mg/l).

ADEQ completed the characterization of cyanide-contaminated soils at the Site. Several areas on the Site exceed the non-residential SRL of 35 milligrams per kilogram (mg/kg) for hydrogen cyanide.

2002: ADEQ completed an early response action (ERA) at the Site which included excavation and disposal of the upper foot of cyanide-contaminated surface soils. Approximately 1,700 tons of contaminated soils were removed from the Site. A one-foot cap of aggregate base coarse material was placed over the remaining cyanide-contaminated soils. This cap helps prevent direct exposure to the underlying contaminated soils remaining at the Site. The ERA also included the removal of two unused sumps and the cleaning of three active septic systems at the Site. Approximately 15,000 gallons of PCE and cyanide-contaminated wastewater and sludge were removed from the disposal system during cleaning operations. The removal of this source material addressed a continuing source of groundwater contamination.

2003: Soil and soil vapor samples were collected from six borings at the Site. Samples were collected to evaluate the vertical extent of PCE contamination. Sampling results indicated that the concentrations of PCE remaining in the soil did not exceed regulatory standards.

2004: ADEQ collected indoor air data from the buildings on the property and one building adjacent to the property. This data was collected as part of an ongoing risk assessment of the indoor air at the Site. ADEQ also drilled and sampled four deep borings beneath two of the remaining septic tanks and the former disposal pond area. The purpose of these borings was to evaluate the cyanide contamination at depth in these areas. Cyanide contamination above the non-residential SRL extends to a depth of approximately 17 feet bgs in some areas of the Site. ADEQ used these data and other information to develop groundwater protection levels for the cyanide contaminated soils remaining in place.

Also, ADEQ drilled and sampled two deep groundwater monitor wells at the Site. Analysis of groundwater samples from these deep wells did not indicate PCE or cyanide contamination above an AWQS.

2005-2006: ADEQ drilled and sampled ten additional groundwater monitor wells to further define the extent of the contaminant plume. Laboratory analyses from these monitor wells indicate that the contaminant plume extends approximately ½ mile downgradient of the Site. The lateral extent of the plume has not yet been fully characterized.

2007: Installation of additional deep groundwater monitor wells indicated that groundwater was present in three distinct zones: shallow (50 to 90 feet bgs); middle (105 to 170 feet bgs) and deep (starting at 170 feet bgs). Each zone is divided by separate clay units. Groundwater samples from each zone indicated that the majority of the contaminant plume was located within the middle zone.

2008: ADEQ installed one groundwater extraction well in the middle of the contaminant plume. An aquifer test was completed to determine aquifer characteristics. The last remaining septic

system on the HIL property was taken out of service and replaced with a new system and leach field located away from contaminated soil. Additional information was gathered north of the HIL property to locate potential sources areas.

2009: A shallow soil vapor investigation was performed to help identify potential source areas. The soil vapor investigation included the installation of several permanent soil vapor monitor probes and performing a soil vapor survey.

2010: In November, additional permanent soil vapor monitor probes were installed to help identify potential source areas. Results of the soil vapor investigation will be pending following the collection of samples in the First Quarter of 2011.

Contaminants:

The current contaminants of concern at the Site include tetrachloroethene (PCE), trichloroethene (TCE) and cyanide. Contaminants of concern at the Site may change as new data become available.

Public Health Impact:

No irrigation, drinking water or City of Yuma production wells have been impacted by the volatile organic compounds or cyanide contamination from the Site. However, PCE, TCE and cyanide are present in the groundwater monitor wells at the Site at concentrations above the AWQS. A soil cap prevents direct exposure to the underlying cyanide contaminated soils remaining at the Site.

The City of Yuma is the main municipal water provider at this Site. No one is known to be drinking contaminated water from this Site. However, if you are drinking water from a private well within the boundaries of the Site, please contact the ADEQ Project Manager.

Site Hydrogeology:

The Yuma area is underlain by thick sequences of non-marine and marine sedimentary rocks. However, only the upper several hundred feet of these sediments are hydrologically important. This is because the upper layers are extremely transmissive and yield sufficient quantities of water to wells.

From lowest to uppermost, the upper layers are described as the wedge zone, the coarse gravel zone, and the upper fine-grained zone. The wedge zone overlies the marine sedimentary Bouse formation and consists of interbedded sands, gravels and cobbles. The wedge zone is approximately 2,500 feet thick in the area and pinches out against the basin bounding ranges.

The coarse gravel zone overlies the wedge zone, varying from zero to 100 feet in thickness. The coarse gravel zone consists of fluvial deposits of coarse gravels, including cobbles and boulder size material. The coarse gravel zone is the principal aquifer for the Yuma area. The coarse gravel zone is generally found at a depth of 100 feet in the low lying valley areas near the Site,

and at a depth of about 180 feet below the Yuma Mesa where the Site is located. However, the coarse gravel zone is not present beneath the Site.

The upper fine-grained zone is the uppermost saturated unit which overlies the coarse gravel zone. The upper fine-grained zone is up to 200 feet thick and is characterized as sands and silts and may have an extensive clay layer which can locally affect groundwater movement. The Yuma Mesa is a remnant of the upper fine-grained zone which is mostly missing in the nearby low lying valley areas.

Depth to groundwater at the Site is approximately 75 feet below ground surface (bgs). Groundwater flow direction at the Site is generally to the northwest.

Contacts:

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Tina Le Page, ADEQ Project Manager	(520) 628-6663* (520) 628-6745 fax	lepage.tina@azdeq.gov
Eileen Palese, ADEQ Community Involvement Coordinator	(520) 628-6712*/ (520) 628-6745 fax	ep1@azdeq.gov

*In Arizona, but outside the Tucson area, call toll-free at (888) 271-9302.

Information Repository:

The complete official Site file is located in Phoenix at the ADEQ Central Office at 1110 W. Washington Street; however, select documents are also available in Tucson at the Southern Regional Office at 400 W. Congress, Suite 433. Files are available for review Monday through Friday from 8:30 a.m. to 4:30 p.m. Please call (520) 628-6715 or toll-free (888) 271-9302 to arrange a file review appointment at the Southern Regional Office.

To arrange for a time to review the Site file at the main ADEQ Phoenix office, please call the ADEQ Records Management Center with 24-hour notice at (602) 771-4380 or (800) 234-5677. Once all documents requested have been collected, you will be contacted for a review Monday through Friday from 8:30 a.m. to 4:30 p.m. at the ADEQ Records Management Center, 1110 W. Washington Street in Phoenix, AZ.

SITE REGISTRY REPORT

WATER QUALITY ASSURANCE REVOLVING FUND SITE 20TH STREET AND FACTOR AVENUE Yuma, Yuma County, Arizona March 30, 2000

The 20th Street and Factor Avenue Water Quality Assurance Revolving Fund (WQARF) site is located on the south side of 20th Street, east of Arizona Avenue, in Yuma, Arizona. The site is approximately bounded by 19th Street to the north, 21st Street to the south, Kennedy Lane to the east, and Rail Avenue to the west. The attached map shows the actual site boundary.

The facility at 655 E. 20th Street has operated from the mid-1960s until present. Its operations included film processing and manufacturing photographic products. According to reports prepared by the property owner's consultants, wastewater was discharged to an underground collection tank. When the tank was full, the wastewater was discharged to the ground on east and south sides of the facility. Soil staining was observed on the east and south sides of the facility and also on the vacant lot adjacent to the east side of the facility. This indicates that wastewater from the site likely flowed onto the vacant lot. Additionally, wastewater was used to water plants in the landscaped areas at the facility. The facility has modified its operations so that, at present, no wastewater is generated.

The contaminants of concern are tetrachloroethylene (PCE) and metals. PCE was used in a vapor degreaser, and, in 1978, 15 to 20 gallons of PCE were accidentally discharged to the underground collection tank. In 1994, PCE was detected in the wastewater. PCE has also been detected in the onsite and offsite groundwater monitoring wells at levels that exceed the Arizona Aquifer Water Quality Standard of 5.0 micrograms per liter for PCE. The most recent sampling results from the onsite monitoring wells indicate that PCE is present at concentrations ranging from 5.2 to 1,300 micrograms per liter. The nearest downgradient domestic and irrigation wells have been sampled, and PCE was not detected in any of them. These wells are not used for drinking water.

Metals have been detected in onsite soils and groundwater. Lead and selenium have been detected in one onsite groundwater monitoring well above the Arizona Aquifer Water Quality Standards of 15 micrograms per liter for lead and 50 micrograms per liter for selenium. Metals are not expected to migrate to the nearest domestic and irrigation wells. This is because metals have much lower mobility than PCE, and PCE was not detected in any of the domestic and irrigation wells.

No actual public health impacts have been identified. However, PCE may travel to the nearby wells, and that, at some point in the future, incidental exposure may occur through irrigation and/or spraying the water.

The Eligibility and Evaluation (E&E) score for this site is 31. The Arizona Department of

Environmental Quality (ADEQ) proposes that the 20th Street and Factor Avenue site be added to the WQARF Registry established pursuant to Arizona Revised Statutes (ARS) § 287.01(D).

This Site Registry Report (SRR) was prepared to meet the requirements of ARS § 287.01(B). The attached Eligibility and Evaluation (E&E) score was prepared in accordance with the E&E model dated October 2, 1996, developed by the Ground Water Cleanup Task Force. ARS § 287.01(C) outlines the process for listing a site on the WQARF Registry. The process includes a 15-day owner/operator comment period followed by a 30-day public comment period. At the conclusion of the public comment period, ADEQ will consider any comments made before issuing a final E&E score and placing the site on the Registry.

This Site Registry Report is based upon information available as of the date shown. Site boundaries depicted on the attached Site Boundary Map represent ADEQ's interpretation of data available at the time the map was constructed. The map is intended to provide the public with basic information as to the estimated geographic extent of known contamination as of the date of the SRR. The actual extent of contamination may be different. Therefore, the geographic boundaries for this site may change in the future as new information becomes available.

An updated SRR and associated Site Boundary Map will not be issued. As new information becomes available, during the remedial investigation or otherwise, it will be made available for public review through placement in the public file.

FILE INFORMATION

WATER QUALITY ASSURANCE REVOLVING FUND 20TH STREET AND FACTOR AVENUE SITE YUMA, YUMA COUNTY, ARIZONA

The Arizona Department of Environmental Quality Site Assessment Unit has the following files regarding this site:

- ! 20th Street and Factor Avenue Site Registry File
- ! Houston International PA/SI File

To review any of these files, please contact the ADEQ Records Center at (602) 207-4378 to arrange an appointment to review the files.

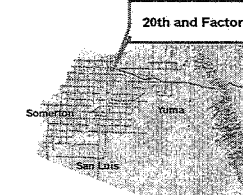
The Arizona Department of Environmental Quality Hazardous Waste Section has a closed case file for Houston International. To review this file, contact Wayne Hood, Jr., at (602) 207-4234 to set an appointment.

20th Street and Factor Avenue WQARF Site - Yuma, Arizona

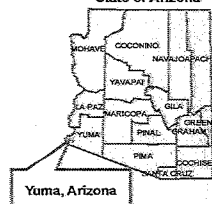


ADEQ
Arizona Department
of Environmental Quality

Area Map



State of Arizona



Legend



Estimated Plume Boundary



0 250 500
Feet

Map Date: July, 2011

WASTE PROGRAMS DIVISION
Remedial Projects Unit

Map produced by Arizona Department of
Environmental Quality (ADEQ), Data
Management and GIS Unit, TS Summers

D:\superfund\statewide\2011\20thfact\
projects\2011\20thfact\2011.mxd

Data Sources:
Arizona Department of Environmental Quality
Arizona Land Resources Information System
Arizona Department of Transportation
Image: State Wide

"Site boundaries depicted on the site map represent
ADEQ's interpretation of data available at the time
the map was constructed. The map is intended to
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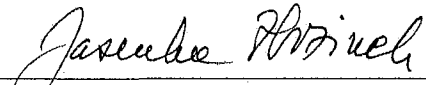
**GROUNDWATER MONITORING WELL
INSTALLATION AND SAMPLING
SUMMARY REPORT FOR 2002**

**20th AND FACTOR WQARF SITE
YUMA, ARIZONA**

Prepared for
Arizona Department of Environmental Quality
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Phoenix, AZ 85007

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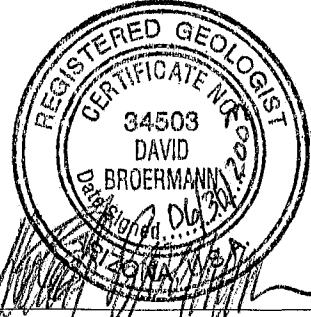

David Broermann, R.G.
Senior Geologist

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DISTRIBUTION

1.0 INTRODUCTION

This report documents the installation and sampling of groundwater monitor wells, by GeoTrans Inc. (GeoTrans), at the Yuma 20th and Factor Water Quality Assurance Revolving Fund (WQARF) Site (Site) located in Yuma, Arizona (Figure 1). In January 2002, GeoTrans installed three groundwater monitor wells and collected groundwater samples at the new wells and existing groundwater monitoring well on behalf of the Arizona Department of Environmental Quality (ADEQ). The scope of these services is based on the Contract Number 99-0017, Task Assignment Scope of Work (TASOW) Number 01-0017, and subsequent ADEQ decisions and approvals.

1.1 BACKGROUND

The Site is located in an industrial area in the eastern portion of Yuma County, Arizona, which has not been annexed by the Town of Yuma.¹ The Site is located southeast of 20th Street and Factor Avenue (Figure 1). The approximate geographical coordinates of the Site are 32° 41' 27" north latitude, 114° 36' 38" west longitude. The cadastral location of the site is N ½ of the SW ¼ of Section 34, Township 8 South, Range 23 West of the Gila and Salt River Baseline and Meridian (ADEQ, 1999).

The Site includes an industrial property (Property) that is identified by the Yuma County Assessor's Office as Parcel 33 in Book 109 of Map 64. The Property was undeveloped land prior to early 1965. Starting in 1966, the Property was occupied by Houston Photo Products, Inc. The company name was later changed to Houston International, Ltd. (Houston International). From 1966 to 1995, Houston International occupied the Property, and thereafter the Property has been occupied by other businesses, including Houston Fearless 76, Inc. (Houston Fearless), a manufacturer of film processing machines. Wastewater resulting from film development and/or processes associated with manufacturing of film processing machines by Houston International were discharged to five wastewater disposal systems (WDSs) and/or to the ground. Chemicals of concern (COC) contained in the wastewater may have included volatile organic compounds (VOCs), semi-VOCs (SVOC), metals, and cyanides, thus resulting in impacting the soil and groundwater underlying the Site, including the parcel immediately east of the Property.

1.2 SUMMARY OF HISTORIC DATA

Foree & Vann, Inc. (Foree & Vann), a contractor for Houston International, conducted a Phase II Environmental Site Assessment (EIS) in 1990 (Foree & Vann, 1990a and 1990b). Based on the results of the Phase II EIS, Foree & Vann installed a total of three groundwater monitor wells MW-1, MW-2 and MW-3 (Figure 2). Analytical results of groundwater samples collected from these wells are summarized in Table 1.

¹ The Site is located in a Yuma County island, within the City of Yuma.

1993c). Analytical results for the samples collected by Foree & Vann and ADEQ are shown in Table 1. Tetrachloroethylene (PCE) was detected in the ADEQ split samples from monitor wells MW-1 (27,000 micrograms per liter [$\mu\text{g/L}$]), MW-2 (10,000 $\mu\text{g/L}$), and MW-3 (5,000 $\mu\text{g/L}$) (ADEQ, 1999). Analytical results of groundwater samples collected by ADEQ for metals indicate the presence of lead and selenium in concentrations exceeding their respective Aquifer Water Quality Standards (AWQSS).

On May 22 to 23, 1995, Foree & Vann collected HydroPunch™ groundwater samples from one location at depths of 75, 82, 85, 96, and 102 feet below ground surface (bgs) (Foree & Vann, 1996). The exact location of this HydroPunch™ investigation could not be identified by GeoTrans based on the documents currently present in the ADEQ WQARF files. The collected groundwater samples were screened for trichloroethylene (TCE), PCE, and benzene, toluene, ethylbenzene, and total xylenes (BTEX); only PCE was detected as follows:

- 75 feet bgs: 620 $\mu\text{g/L}$ PCE;
- 82 feet bgs: 580 $\mu\text{g/L}$ PCE;
- 85 feet bgs: 2,400 $\mu\text{g/L}$ PCE;
- 96 feet bgs: 1,100 $\mu\text{g/L}$ PCE; and,
- 102 feet bgs: 1,200 $\mu\text{g/L}$ PCE.

In March 1996, Geotechnical and Environmental Consultants, Inc. (GEC) installed and sampled an upgradient monitor well (MW-101) on an adjacent property located to the east (Figure 2) (GEC, 1996). On October 3, 1996, GEC purged monitor wells MW-1, MW-2, MW-3, and MW-101, and collected the groundwater samples on the following day from the previously purged wells. Analytical results of the groundwater samples collected from these wells are analyzed in Table 1. GEC concluded the concentrations of PCE in groundwater samples collected by GEC were significantly lower than concentrations of PCE in groundwater samples previously collected by Foree & Vann (GEC, 1997).

In November 1996, monitor well MW-102 was installed by GEC and completed as a nested well, with screen intervals of 80 to 90 feet bgs (MW-102A), 110 to 120 feet bgs (MW-102B), and 140 to 150 feet bgs (MW-102C). On November 6, 1996, GEC developed the wells, and sampled them on November 14, 1996. The corresponding analytical results indicated that PCE was present in the groundwater samples from MW-102A (78 $\mu\text{g/L}$), MW-102B (38 $\mu\text{g/L}$), and MW-102C (520 $\mu\text{g/L}$) (GEC, 1997) (Table 1). GEC concluded that the vertical extent of PCE in groundwater was not delineated. Duplicate groundwater samples were also collected by ADEQ from monitor wells MW-102A and MW-102C; the corresponding results are included in Table 1.

In order to determine if production wells in the area were impacted by contaminants detected in the Site wells, the ADEQ Site Assessment Unit collected groundwater samples from seven production wells within a one-mile radius of the Site on February 23 and 24, 1998 and May 4, 1998. PCE was not detected in any of the off-Site wells sampled by ADEQ; however, chloroform (1.2 $\mu\text{g/L}$) was detected in the Woodard R. Pete Junior High School well located to the west, thus down- and cross-gradient, of the Site (ADEQ, 1999).

1.3 SCOPE OF WORK

The scope of work summarized in this report included the installation of three groundwater monitor wells (MW-5, MW-6, and MW-7), collection, preparation, and shipping of groundwater samples from the new and existing groundwater monitor wells (MW-1, MW-2, MW-3, MW-5, MW-6, and MW-7, MW-101, and MW-102 A, B, C) in accordance with the Draft Quality Assurance Project Plan (GeoTrans, 2001a), Draft Field Sampling Plan (GeoTrans, 2001b), and subsequent ADEQ decisions and approvals. Additionally, the scope of work summarized in this report included collecting water levels at each of the wells, disposing of Investigation Derived Waste (IDW) generated by purging of groundwater monitor wells, sampling of ADEQ-selected off-Site water supply wells, and coordination with the ADEQ Project Manager. Groundwater monitor well MW-4 was not drilled and installed when groundwater monitoring wells MW-5, MW-6 and MW-7 were installed, because ADEQ and GeoTrans agreed that the well should not be installed until wastewater disposal system (WDS) number four (WDS-4) was excavated and removed. However, due to ADEQ's budgetary cutbacks, MW-4, one additional shallow groundwater monitor well (MW-8), and three deep groundwater monitor wells will not be installed until funding is obtained.

1.4 OBJECTIVE OF MONITORING WELL INSTALLATION AND SAMPLING

The objective of the groundwater monitoring well installations and sampling was to further assess the direction of groundwater flow and its gradient and the extent of groundwater contamination by PCE, cyanides, and other possible COCs that exceeded AWQs in the area near the Property boundary (Figure 2).

2.0 FIELD ACTIVITIES

Three groundwater monitor wells were installed during the week of January 14, 2002 by GeoTrans. Groundwater sampling activities were performed on January 28 and 29, 2002 by GeoTrans personnel. On May 22, 2003, two off-Site water supply wells, Woodard R. Pete Junior High School and Alice Byrne School, were also sampled. Groundwater elevation measurement activities were also performed on October 1, 2002. Deviations from the planned scope of work are presented in Section 2.3.

2.1 GROUNDWATER MONITOR WELL INSTALLATION

During the week of January 14, 2002, Geomechanics Southwest, Inc. (GSI), under the supervision of GeoTrans, installed groundwater monitoring wells MW-5, MW-6, and MW-7 (Figure 2). Construction details for these new wells and the existing wells are provided in Table 2. Groundwater monitor well locations were selected based on water quality and water level measurements collected using existing wells. The wells were drilled using a CME 75 hollow stem auger drill rig, and completed using schedule 40 PVC casing and screen, as described in monitor well construction summaries, well construction diagrams and boring logs attached in Appendix B. Groundwater monitoring wells MW-5 and MW-6 were developed using a bailer that was 10 feet in length and approximately three inches in diameter. Groundwater monitoring well MW-7 was not developed, because liquid phase hydrocarbon (LPH) was noted in the boring and well. The LPH identified in the well is presumably diesel fuel from the releases at the railroad facility north of the Site.

Two soil samples were collected when drilling MW-7 and submitted to Columbia Analytical Services (CAS) under proper chain-of-custody protocols for analysis of VOCs using EPA Test Method 8260. Analytical results are included in Appendix A. Soil cuttings produced when drilling monitor wells MW-6 and MW-7 were placed into a roll-off bin and sampled. Soil cuttings produced when drilling MW-5 were placed on and covered with visqueen and sampled. All soil cuttings were analyzed for disposal purposes. Based on analytical results for soil cuttings from MW-5, the cuttings were left at Site, and soil cuttings from MW-6 and MW-7 were disposed of at Copper Mountain Landfill near Yuma, Arizona. Copies of the laboratory report and manifest documenting the disposal of soil cuttings from MW-6 and MW-7 are included in Appendices A and B, respectively.

The installation of groundwater monitor well MW-4 was temporally postponed until after wastewater disposal system (WDS) number four (WDS-4) could be excavated, inspected, and removed. As discussed with, and agreed to by ADEQ, MW-4 was to be installed after the excavation of WDS-4 and cyanide-impacted soil in the vicinity of WDS-4, to prevent damage of a newly installed well.

2.2 WATER LEVEL MEASUREMENTS

GeoTrans collected water level measurements at monitor wells MW-1, MW-2, MW-3, MW-5, MW-6, MW-101, and MW-102 A, B, C, on January 28 and 29, 2002 and October 1, 2002. Water level measurements were collected using a Slope Indicator electric water sounder, and liquid phase

thickness was measured using an interface probe. The depth to water was referenced to the surveyed point at each monitor well. Groundwater elevations and groundwater contours for the shallow aquifer are provided on Figures 3 and 4.

2.3 GROUNDWATER SAMPLING

During January 28 and 29, 2002 sampling event, groundwater samples were collected using standard three-volume well purging techniques. Groundwater samples were collected from groundwater wells MW-1, MW-2, MW-3, MW-5, MW-6, MW-101, and MW-102 A, B, C. Groundwater monitor wells MW-1, MW-2, and MW-3 were purged using new, 1.5-inch diameter, disposable bailer's due to the water level in the wells and/or the known capacities and yields of the groundwater wells previously sampled by GeoTrans. Historically, when attempting to purge these wells using a 2-inch diameter, variable frequency Grundfos sampling pump, the wells were pumped dry no matter how low the flow rate was adjusted. GeoTrans utilized a 2-inch diameter, variable frequency Grundfos sampling pumps to purge and sample monitor well MW-102 A, B, C, and 3-inch diameter, variable frequency Grundfos sampling pumps to purge and sample monitor wells MW-5 and MW-6. Access to MW-101 prevented the use of pumps to purge MW-101; therefore, MW-101 was purged and sampled by hand, using a new disposable 3-inch diameter bailer.²

As the monitor wells were purged, discharge water was monitored for the following parameters using a Hydrolabs Quanta-G multi-parameter hydrochemistry instrument: pH, conductivity, temperature, dissolved oxygen (DO), and oxidation-reduction potential (ORP). Sampling techniques called for purging to continue until three well volumes had been purged and successive measurements were within ± 0.1 for pH, $\pm 3\%$ for conductivity, ± 10 millivolts for oxygen redox potential (ORP), and $\pm 10\%$ for DO, or until the parameters had reached asymptotic values for 10 minutes, or 45 minutes of purging had occurred.

After a minimum of three well-volumes had been purged from monitor wells, and after monitoring parameters had stabilized, groundwater samples were collected by lowering a 1.5-inch diameter disposable plastic bailer on synthetic bailing twine down each well. The bailer was then retrieved, and a low-flow sampling tip was used to collect a sample using pre-preserved laboratory sample containers. Immediately after sampling, the sample containers were labeled, placed in a cooler with wet ice, and logged on the chain-of-custody form.

All the samples were submitted under proper chain-of-custody protocol to CAS for analysis of total cyanide (EPA Test Method 335.2), free cyanide (Standard Method 4500-CN) and VOCs (EPA Test Method 8260B). Groundwater samples from MW-5 and MW-6 were also analyzed for SVOCs (EPA Test Method 8270) and total and dissolved (field filtered) priority pollutant metals (EPA Test Methods 3010A/3020A with 6010B/7060A/7470/7841, as applicable). Additional groundwater samples collected from groundwater monitor wells MW-2, MW-5, MW-6, and MW-101 were also submitted under chain-of-custody protocols to Transwest Geochem (TWG) for analysis of total and free cyanide (Standard Method 4500-CN), also referred to as amenable cyanide. The samples were

² Because access to MW-1 using a vehicle was restricted for health and safety reasons, GeoTrans personnel accessed the well from the south by foot, and carried needed equipment to purge and sample the well.

delivered to CAS and TWG on January 31, 2002. Groundwater sampling forms for this event are presented in Appendix D.

On May 22, 2002, GeoTrans also collected groundwater samples from two off-Site water production wells used for irrigation at two schools west of the Site. The schools, Woodard R. Pete Junior High School and Alice Byrne School are located at 2250 S. 8th Avenue and at 811 W. 16th Street, respectively. Samples were submitted under chain-of-custody protocols to TWG for analysis of total and free cyanide (Standard Methods 4500-CN) and VOCs (EPA Test Method 8260B).

2.3 DEVIATIONS FROM THE SCOPE OF WORK

No specific deviations from the planned scope of work detailed in the draft Field Sampling Plan (GeoTrans, 2001b) and other agreements between ADEQ and GeoTrans were noted during these sampling round, with the exception of sampling MW-7. This monitor well was not sampled due to the presence LPH.

3.0 MONITORING AND SAMPLING RESULTS

3.1 WATER LEVEL MEASUREMENTS

A summary of depth-to-water and groundwater elevation measurements is provided in Table 3. Based on the depth-to-water measurements collected by GeoTrans on January 28 and 29, 2003 and October 1, 2002, the general groundwater flow direction in Subunit A is believed to be toward the west. The groundwater gradient near the center portion of the Site was calculated to be approximately 0.0012 feet per foot (ft/ft). The groundwater gradient in the western portion of the Site, near Factor Avenue, was also calculated to be approximately 0.0012 ft/ft. Based on water level elevation measurements collected in October 2002, it appears that groundwater flow may have shifted from a westward direction to a more northwest direction. The lack of monitor wells in the northeast portion of the Property and the south-central portion of the Site precludes a better understanding of the groundwater flow regime.

3.2 GROUNDWATER SAMPLE ANALYTICAL RESULTS

A summary of compounds detected in groundwater samples collected by GeoTrans in January 2002 is shown in Table 4. A summary of the results of all GeoTrans' groundwater sampling events related to the Site are shown in Table 5. On January 28 and 29, 2002 PCE was detected in the groundwater samples collected from monitor wells MW-1 (320 µg/L), MW-2 (420 µg/L), MW-3 (80 µg/L), MW-5 (310 µg/L), MW-6 (120 µg/L), MW-101 (2.3 µg/L), and MW-102 A (75 µg/L), MW-102 B (320 µg/L), MW-102 C (220 µg/L). The AWQS for PCE is 5 µg/L. No other VOCs reported using EPA Test Method 8260B were detected above the AWQSs in the groundwater samples analyzed by CAS, with the exception of TCE, detected in the sample collected from MW-102B (12 µg/L). The ADEQ AWQS for TCE is 5 µg/L.

Cadmium was detected in monitor well MW-5 (0.008 milligrams per liter [mg/L]); the AWQS for cadmium is 0.005 mg/L.

Groundwater samples from monitor wells MW-1, MW-2, MW-5, MW-6, and MW-102 A, B, C were analyzed by CAS for total and free cyanides. Free cyanide was detected in the groundwater samples collected from monitor wells MW-1 (2.07 mg/L), MW-2 (0.162 mg/L), MW-5 (0.4 mg/L), MW-6 (0.24 mg/L), MW-102 A (1.66 mg/L), MW-102 B (0.055 mg/L), and MW-102 C (0.104 mg/L). The AWQS for free cyanide is 0.2 mg/L. Total cyanides were also detected in the groundwater samples collected from monitor wells MW-1 (6.88 mg/L), MW-2 (1.78 mg/L), MW-3 (0.013 mg/L), MW-5 (8.91 mg/L), MW-6 (1.04 mg/L), MW-102 A (2.42 mg/L), and MW-102 B (0.022 mg/L).

Groundwater samples analyzed by TWG for cyanides amenable to chlorination included samples collected from monitor wells MW-2 (<0.010 mg/L), MW-5 (0.40 mg/L), and MW-6 (0.24 mg/L). Total cyanides were also detected by TWG in the groundwater samples collected from monitor wells MW-2 (1.6 mg/L), MW-5 (17 mg/L), and MW-6 (1.2 mg/L). Cyanides were not detected by TWG in the groundwater sample from MW-101 (<0.010 mg/L).

No VOCs were detected in the groundwater samples collected from at the off-Site school wells, with the exception of chloroform in the sample collected at Woodard R. Pete Junior High School, located at 2255 S. 8th Avenue. Cyanides were not detected in the samples collected from either of these wells.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

4.1 EQUIPMENT DECONTAMINATION

GeoTrans utilized an electric well sounder for water level measurements and Grundfos portable, submersible pumps to purge water from selected monitor wells. Each piece of equipment was decontaminated prior to initial use and between sampling locations by the following procedures:

- Non-phosphatic detergent wash (Alconox or equivalent);
- Tap water rinse; and,
- Final rinse with distilled (or deionized) water.

The sampling pump was decontaminated by pumping solution through the pump and integrated hose, and was cleaned externally in the same detergent wash. Tap water was then pumped through the pump and integrated hoses to complete decontamination.

4.2 FIELD QUALITY ASSURANCE AND LABORATORY METHOD CHECK

Field quality assurance during this January 2002 sampling round included daily field instrument calibration and collection and analysis of one duplicate sample. The duplicate sample was analyzed for VOCs using EPA Test Method 8260B. The duplicate sample was collected from monitor well MW-5, and was used to evaluate laboratory performance.

PCE was detected at a concentration of 310 µg/L in the original groundwater sample and 290 µg/L in the duplicate groundwater sample (Table 4). A trip blank was submitted with the samples collected on January 28 and 29, 2002. The trip blank sample did not contain any detectable concentrations of VOCs.

4.2.1 Sample Preservation and Shipment

GeoTrans utilized appropriate preservatives or preserved sample containers for sample collection and storage. Samples were provided to the laboratory in an insulated cooler at a temperature of 4°C (41°F). Temperature was maintained using water ice. Water ice was placed in water-tight bags to minimize risk of contact between samples and melt water.

4.2.2 Chain-of-Custody Protocols

Immediately after a sample was collected and labeled, the sample was logged on a chain-of-custody form which accompanied the samples to the laboratory (Appendix A). When the primary laboratory received the samples, a unique sample identification number was assigned to each sample container. This number was recorded on the chain-of-custody and was used to identify the sample in all subsequent internal chain-of-custody records, analytical records, and chain-of-custody documents forwarded to any secondary subcontractor laboratories.

4.2.3 Labeling

Each sample container was labeled immediately after the sample was collected. The label included the following information on each sample container:

- Sample identification number;
- Project number;
- Sampler's identification;
- Date and time of collection; and,
- Preservation, if any.

4.3 LABORATORY QA/QC

Groundwater samples were analyzed by CAS in accordance with method criteria. CAS noted a number of difficulties that were experienced during the analysis of the January 2002 sample set. These are explained and presented in the case narrative in Appendix A. The difficulties included the following items:

- Matrix spike recoveries for various VOCs were high, but did not effect the VOC concentrations detected in the samples, and;
- Lab Control Spike/Duplicate Lab Control Sample recoveries were high for several of the percent recovery limits, but were within the relative percent recovery limits.

These difficulties do not appear to significantly impact the overall quality of the results.

4.4 CORRECTIVE ACTIONS

No deviations requiring corrective action occurred during this sampling and monitoring round. GeoTrans does recommend redevelopment of the monitor wells installed prior to 2001, which may allow more consistent purging and sampling methods between wells.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 GROUNDWATER ELEVATIONS

GeoTrans collected groundwater level measurements from existing and new groundwater monitor wells at the Site on January 29, 2002. Groundwater elevations calculated for January 29, 2002 indicate a general groundwater flow direction towards the west. The groundwater gradient was calculated at approximately 0.0012 ft/ft in the western portion of the site and 0.0012 ft/ft in the eastern portion of the Site. Based on groundwater level measurements collected, it appears that groundwater flow directions have shifted to more northwesterly direction at the Site.

Groundwater elevations appear to be affected by evaporative cooler discharges to the ground at the Property. Based on discussions with property owners upgradient from the Site, the development of parcels east and south of the Site will include landscaping that will require water. Therefore, GeoTrans recommends continued groundwater monitoring to determine if there are seasonal groundwater elevation trends.

5.2 ANALYTICAL RESULTS FOR CONTAMINANTS OF CONCERN

ADEQ initially identified PCE as the VOC COC at the Site; however, cyanides, selenium, and cadmium were also identified as COCs by ADEQ based on analytical results of the Site ERA findings.

5.2.1 VOCs

PCE was detected in all of the groundwater samples collected from monitor wells on January 28 and 29, 2002. Concentrations of PCE detected in the samples collected at the Property ranged from 420 µg/L to 75 µg/L, and 2.3 µg/L PCE was detected in the sample collected from the Site upgradient groundwater monitor well MW-101. The AWQS for PCE is 5 µg/L. No other VOCs reported using EPA Test Method 8260B were detected above the AWQSs in the groundwater samples analyzed by CAS, with the exception of TCE detected in the sample collected from MW-102B (12 µg/L). The AWQS for TCE is 5 µg/L.

No VOCs were detected in the groundwater samples collected from the off-Site school wells, with the exception of chloroform in the sample collected at 2250 S. 8th Avenue.

5.2.2 Cyanides

Free cyanide was detected in the groundwater samples collected from monitor wells MW-1 (2.07 mg/L), MW-2 (0.162 mg/L), MW-5 (0.4 mg/L), MW-6 (0.24 mg/L), MW-102 A (1.66 mg/L), MW-102 B (0.055 mg/L), and MW-102 C (0.104 mg/L). The AWQS for free cyanide is 0.2 mg/L. Total cyanides were also detected in the groundwater samples collected from monitor wells MW-1 (6.88 mg/L), MW-2 (1.78 mg/L), MW-3 (0.013 mg/L), MW-5 (8.91 mg/L), MW-6 (1.04 mg/L), MW-102 A (2.42 mg/L), and MW-102 B (0.022 mg/L).

Groundwater samples analyzed by TWG for cyanides amenable to chlorination included samples collected from monitor wells MW-2 (<0.010 mg/L), MW-5 (0.40 mg/L), and MW-6 (0.24 mg/L). Total cyanides were also detected by TWG in the groundwater samples collected from monitor wells MW-2 (1.6 mg/L), MW-5 (17 mg/L), and MW-6 (1.2 mg/L). Cyanides were not detected by TWG in the groundwater sample from MW-101 (<0.010 mg/L).

Cyanides were not detected in the samples collected from the off-Site school wells.

5.2.3 Metals

Groundwater samples collected previously by GeoTrans from on-Site wells were analyzed at least once for total priority pollutant metals to determine if metals released at the Site had impacted the underlying groundwater. Groundwater samples from the new monitor wells (MW-5 and MW-6) were analyzed for total priority pollutant metals. Cadmium was detected in groundwater samples from monitor well MW-5 (0.008 mg/L), but was not detected in the sample collected from monitor well MW-6. The AWQS for cadmium is 0.005 mg/L. Historically, cadmium (0.007 mg/L) has only been detected in one other groundwater sample collected by GeoTrans, which was collected on June 16, 2001 from monitor well MW-102C.

Historically, selenium (0.102 mg/L) was detected in groundwater samples collected from on-Site monitor well MW-2 in August 1993. On June 16, 2001, selenium was detected in groundwater samples from on-Site wells MW-1, MW-3, and MW-102 A, B in concentrations exceeding the AWQS of 0.05 mg/L, in on-Site well MW-2 in a concentration of 0.001 mg/L (thus below the AWQS), and in the upgradient well MW-101 in a concentration exceeding the AWQS. In January 2002, selenium was detected in the groundwater samples collected from downgradient wells MW-5 and MW-6 in concentrations of 0.02 mg/L.

Analytical results indicate that the elevated concentrations of metals detected in groundwater may be localized rather than regional, and future sampling and analysis for metals may be warranted.

5.3 RECOMMENDATIONS

5.3.1 Determination of Groundwater Flow Direction and Extent of Contamination in the Western Portion of the Site and Off-Site to the West

Based on the location and spacing of the Site monitor wells, it is difficult to accurately assess groundwater flow direction and contaminant concentrations across the Site. There is a variation in groundwater flow directions in the western portion of the Site, where data from three monitor wells have to be used to determine groundwater flow directions. Analytical results indicate that the extent of impacted groundwater is not defined to the west. GeoTrans thus recommends the installation of a shallow groundwater monitor well MW-4 (next to the former location of WDS-4) to assist with the determination of groundwater flow direction in the western portion of the Site. GeoTrans also recommends installation of three additional shallow downgradient wells to further assess the extent of impacted groundwater to the west.

5.3.2 Determination of the Extent of Off-Site Migration of Contaminated Groundwater to the North

Currently there are only two monitor wells located along the northern Site boundary: MW-7 has LPH in the well and has not been sampled, and MW-6 is located in the northwest corner of the Site. Since cyanides and PCE were detected in monitor wells located on the adjacent property to the north (across 20th Street), GeoTrans recommends installing an additional well (MW-8) in the vicinity of the northeast corner of the Property. GeoTrans also recommends co-monitoring (i.e., collecting split samples and water level measurements) of the existing monitor wells to the north of the Property in conjunction with the Site wells. The resulting data would be used to better evaluate off-Site migration of cyanide- and PCE-impacted groundwater to the north.

5.3.3 Determination of Vertical Extent of On-Site and Off-Site Groundwater Contamination

Analytical data for the on-Site deeper wells MW-102 B, C indicate increased concentrations of PCE with depth, but the vertical extent is not defined. GeoTrans thus recommends installing three additional deep wells, in accordance with the draft Field Sampling Plan (GeoTrans, 2001b).

5.3.4 Determination of the Extent of Off-Site Groundwater Contamination to the East

Two water supply wells have been installed within a half mile of the Property: the Kennedy Lane well (KL-1) and Ron Martin well. KL-1 was installed in the vicinity of Kennedy Lane and 20th Street, to supply water to two business/commercial parcels located east, adjacent to the Site. When GeoTrans contacted the well owner, he indicated the quality of the water purged from the well was questionable, and therefore, well water was not used as a source of drinking water. Water supply well KL-1 was sampled by GeoTrans on June 11, 2001, and PCE was not detected in the collected sample. The water supply well installed by Mr. Ron Martin in or about April 2002 on the adjacent property to the southeast of the Property was not sampled by GeoTrans.

GeoTrans also recommends having the well on-site and off-site locations and elevations surveyed, to evaluate groundwater flow at depth.

Consequently, GeoTrans recommends quarterly or biannual sampling of KL-1 and Ron Martin water supply wells to document water quality, and to determine if the use of either of these wells should be restricted by the users due to releases of COCs at the Site.

TABLE 1
SUMMARY OF HISTORICAL ANALYTICAL RESULTS DETECTED IN GROUNDWATER SAMPLES
20th and Factor WQARF Site, Yuma, AZ

Parameter	AWQS (µg/L)	10/22/1992	1/7/1993		4/21/1993			8/17/1993			3/21/1996	10/4/1996					11/14/1996		
		MW-1	MW-1	MW-2	MW-1	MW-2	MW-3	MW-1 ^(a)	MW-2 ^(b)	MW-3 ^(a)	MW-101	MW-1	MW-2	MW-3	MW-101	MW-102A ^(a)	MW-102B	MW-102C ^(a)	
VOCs (ug/L)																			
Tetrachloroethylene (PCE)	5	20,000	20,000	8,700	18,300	6,860	270,000	20,000/27,000	6,500/7,300/10,000	8,700/5,000	20	1,300	3,000	150	5.2	78/76D	38	520/470D	
Trichloroethylene (TCE)	5	<25	<25	7.8	5.2	5.4	<0.8	<1,000/<500	<1,000/<400/<500	<200/<250	<0.50	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/<0.5	
1,1,1-Trichloroethane (1,1,1-TCA)	200	<25	<25	0.6	8.6	NA	NA	<1,000/<500	<1,000/<400/<500	<200/<250	<0.50	<50	<50	<2.5	<0.5	<2.5/0.6	<1.0	<25/2.0	
1,1,2-TCA	5	<25	<25	0.7	<0.8	<0.8	<0.8	NA/<500	NA/NA/<500	NA<250	<0.50	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/<0.5	
1,1-Dichloroethylene (1,1-DCE)	7	<25	<26	5.7	<0.8	<0.8	<0.8	<1,000/<500	<1,000/<400/<500	<200/<250	<0-.50	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/<0.5	
1,1-Dichloroethane (1,1-DCA)		<25	<25	1.4	NA	NA	NA	<1,000/<500	<1,000/<400/<500	<200/<250	<0.50	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/0.9	
1,1,1,2-Tetrachloroethane		<25	<25	1.3	<0.8	<0.8	<0.8	NA/NA	NA/NA/NA	NA/NA	NA	NA	NA	NA	NA	NA/<1.0	NA	NA/1.0	
Bromodichloromethane	100 ##	<50	<50	<1.0	<0.8	<0.8	<0.8	<1,000<500	<1,000/<400/<500	<200/<250	4.2	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/9.0	
Dibromochloromethane	100 ##	<25	<25	<0.5	<0.8	<0.8	<0.8	<1,000/<500	<1,000/<400/<500	<200/<250	<0.50	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/14	
1,2-Dichlorobenzene	75	<50	<50	2.4	6.5	<0.8	<0.8	<1,000/<500	<1,000/<400/<500	<200/<250	<1.0	<100	<100	<5.0	<1.0	<2.5/<0.5	<2.0	<50/<0.5	
Chloroform		<25	<25	1.4	<0.8	<0.8	<0.8	<1,000/<500	<1,000/<400/<500	<200/<250	4.7	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/11.0	
Bromoform		<50	<50	NA	<0.8	<0.8	<0.8	<1,000/<1,000	<1,000/<400/<1,000	<200/<500	<0.50	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/2.2	
Methylene Chloride		<100	<100	2.6	NA	NA	NA	<5,000/5,000	<5,000/<2,000/5,000	<1,000/<2,500	<5.0	<50	<50	<2.5	<5.0	<25/<2.0	<10	<250/<2.0	
Benzene	5	<25	<25	1.2	7.6	28,100	3.6	<1,000/<1,000	<1,000/<400/<1,000	<200/<500	<0.50	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/<0.5	
Toluene	1,000	38	38	0.8	<0.8	29,200	<0.8	<1,000/<1,000	<1,000/<400/<1,000	<200/<500	<0.50	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/<0.5	
Ethylbenzene	700	<25	<25	<0.5	<0.8	21,900	<0.8	<1,000/<1,000	<1,000/<400/<1,000	<200/<500	<0.50	<50	<50	<2.5	<0.5	<2.5/<0.5	<1.0	<25/<0.5	
o-Xylene	10,000 #	NA	<50	<1.0	1.5	46,600	<0.8	NA/<500	NA/NA/<500	NA/<250	NA	NA	NA	NA	NA	<2.5/<0.5	<3.0	<25/<0.5	
m-Xylene	10,000 #	NA	<50	<1.0	<0.8	46,500	<0.8	NA/<1,000	NA/NA/<1,000	NA/<500	NA	NA	NA	NA	NA	<2.5/<0.5	<3.0	<25/<0.5	
Naphthalene		<25	<25	0.5	<0.8	<0.8	<0.8	NA/NA	NA/NA/NA	NA/NA	NA	NA	NA	NA	NA	NA/NA	NA	NA/NA	
Metals (mg/L)																			
Barium	2	NA	NA	NA	NA	NA	NA	0.41	0.7/0.72	0.18	NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium	0.005	NA	NA	NA	NA	NA	NA	<0.001	0.0019/0.0015	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	
Calcium		NA	NA	NA	NA	NA	NA	236	322/334	59.2	NA	NA	NA	NA	NA	NA	NA	NA	
Chromium	0.1	NA	NA	NA	NA	NA	NA	0.011	<0.010/0.012	<0.010	NA	NA	NA	NA	NA	NA	NA	NA	
Iron		NA	NA	NA	NA	NA	NA	19	18.9/19.1	9.03	NA	NA	NA	NA	NA	NA	NA	NA	
Lead	0.05	NA	NA	NA	NA	NA	NA	<0.005	0.079/0.070	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	
Magnesium		NA	NA	NA	NA	NA	NA	51.2	82/84.5	18.4	NA	NA	NA	NA	NA	NA	NA	NA	
Manganese		NA	NA	NA	NA	NA	NA	0.27	0.18/0.31	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury	0.002	NA	NA	NA	NA	NA	NA	<0.0005	0.0005	<0.0005	NA	NA	NA	NA	NA	NA	NA	NA	
Selenium	0.05	NA	NA	NA	NA	NA	NA	0.012	0.102/0.05	<0.025	NA	NA	NA	NA	NA	NA	NA	NA	
Sodium		NA	NA	NA	NA	NA	NA	646	1280/1,270	790	NA	NA	NA	NA	NA	NA	NA	NA	
Zink		NA	NA	NA	NA	NA	NA	<0.05	0.09/0.15	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	

NOTE: 1) Only detected compounds are shown
2) Bold indicates concentrations exceeding the AWQS
3) The second number corresponds to a duplicate sample analyzed by ADEQ
4) The second and third numbers correspond to duplicate sample analysis by consultant and ADEQ, respectively

AWAS Aquifer Water Quality Standard
D Sample analyzed under dilution
NA Not analyzed
mg/L Milligram per liter
µg/L Microgram per liter
VOCs Volatile organic compounds
Total xylenes
Total trihalomethanes

TABLE 2
MONITOR WELL CONSTRUCTION DETAILS
 20th and Factor WQARF Site, Yuma AZ

Compounds	Cadastral Location	ADWR Number	Depth (feet)	Screened Interval (feet)
MW-1	(C-08-23)34cba	55-537043	95	65 - 95
MW-2	(C-08-23)34cba	55-537614	95	65 - 95
MW-3	(C-08-23)34cba	55-537615	84	64 - 84
MW-5	(C-08-23)34abc	55-588281	105	62.5 - 104.5
MW-6	(C-08-23)34abc	55-588282	103.5	61 - 103
MW-7	(C-08-23)34abc	55-588279	110	62.5 - 103.5
MW-101	(C-08-23)34cab	55-555248	90	50 - 90
MW-102A	(C-08-23)34cb	55-556705	90	80 - 90
MW-102B	(C-08-23)34cb	55-556705	120	110 - 120
MW-102C	(C-08-23)34cb	55-556705	150	140 - 150

TABLE 3
DEPTH TO GROUNDWATER AND GROUNDWATER ELEVATION MEASUREMENTS
20th and Factor WQARF Site, Yuma AZ

Date	MW-1		MW-2		MW-3		MW-5		MW-6		MW-7		MW-101		MW-102A		MW-102B		MW-102C	
	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation
10/26/1992	74.20	124.64																		
1/7/1993	NM		72.21	126.87																
3/19/1993	72.44	126.4	72.33	126.75	72.16	126.54														
4/21/1993	72.58	126.26	72.54	126.54	72.32	126.38														
6/2/1993	72.66	126.18	72.56	126.52	72.40	126.3														
3/21/1996	72.39	126.45	72.33	126.75	72.13	126.57							70.27	126.77						
10/3/1996	72.6	126.24	73.00	126.08	72.35	126.35							70.49	126.55						
11/14/1996	NM		NM		NM								NM		72.17	126.31	72.13	126.31	72.18	126.33
6/11/2001 #	76.89	121.95	77.37	121.71	76.68	122.02							74.81	122.23	76.53	121.95	76.49	121.95	76.57	121.94
6/16/2001 #	76.89	121.95	77.31	121.77	76.71	121.99									76.57	121.91	76.53	121.91	76.62	121.89
6/25/2001 #	76.89	121.95	77.41	121.67	76.7	122							74.84	122.2	76.54	121.94	76.5	121.94	76.6	121.91
1/29/2002 #	77.09	121.75	77.54	121.54	76.86	121.84	77.01	121.24	76.38	121.25	77.69	119.68	74.96	122.08	76.71	121.77	76.69	121.75	76.65	121.86
10/1/2002 #	76.82	122.02	77.23	121.85	76.56	122.14	76.67	121.58	76.12	121.51	77.27	120.15	74.96	122.08	76.44	122.04	76.37	122.07	76.39	122.12

NM = Not Measured
Monitor wells measured by GeoTrans in 2001 and 2002. Well casing elevations are assumed to be the same, and have not changed.
Well not in existence

TABLE 4
SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER SAMPLES COLLECTED
JANUARY 28 AND 29, 2002
20th and Factor WQARF Site, Yuma, AZ

Parameter	AWQS	1/29-30/2002								
		MW-1	MW-2	MW-3	MW-5	MW-6	MW-101	MW-102A	MW-102B	MW-102C
VOCs		ug/L								
Tetrachloroethylene (PCE)	5	320 D2	420 D2	80	310 D2; 290 D2	120 D2	2.3	75	320 D2	220 D2
Trichloroethylene (TCE)	5	0.99	3.5	<0.50	2.3; 2.2	0.92	<0.50	<0.50	12	0.59
1,1,1-Trichloroethane (1,1,1-TCA)	200	1.6	0.54	<0.50	<0.50; <0.50	<0.50	<0.50	0.92	6.2	6.1
1,1-Dichloroethylene (1,1-DCE)	7	1.2 L1	<1.0 L1	<1.0 L1	<1.0; <1.0	<1.0 L1	<1.0	<1.0 L1	1.6 L1	1.4 L1
1,1-Dichloroethane (1,1-DCA)		6 L1	1.8	<0.50 L1	<0.50 L1; <0.50 L1	<0.50 L1	<0.50 L1	0.89	7	5.3
Bromodichloromethane	100 #	<0.50	<0.50	<0.50	<0.50; <0.50	<0.50	<0.50	<0.50	7.3	5
Dibromochloromethane	100 #	<0.50	<0.50	<0.50	<0.50; <0.50	<0.50	<0.50	<0.50	6.8	4.3
Chloroform		<1.0	3.3	<1.0	1.1; 1	1.1	<1.0	<1.0	6.7	5.9
Benzene	5	<0.50	<0.50	<0.50	<0.50; <0.50	<0.50	<0.50	<0.50	0.79	2.3
Acetone		<10	<10	10	<10; <10	<10	<10	11	18	18
SVOCs		ug/L								
Phenol		NS	NS	NS	<5	<5	NS	NS	NS	NS
Bis(2-ethylhexyl) Phthalate		NS	NS	NS	<5	<5	NS	NS	NS	NS
Butyl Benzyl Phthalate		NS	NS	NS	<5	<5	NS	NS	NS	NS
Di-n-octyl Phthalate		NS	NS	NS	<5	<5	NS	NS	NS	NS
METALS, TOTAL		mg/L								
Cadmium	0.005	NS	NS	NS	<0.005	<0.005	NS	NS	NS	NS
Chromium	0.1	NS	NS	NS	<0.01	<0.01	NS	NS	NS	NS
Copper		NS	NS	NS	<0.01	<0.01	NS	NS	NS	NS
Nickel	0.1	NS	NS	NS	<0.04	<0.04	NS	NS	NS	NS
Selenium	0.05	NS	NS	NS	0.021	0.02	NS	NS	NS	NS
Zinc		NS	NS	NS	0.4	0.12	NS	NS	NS	NS
METALS, DISSOLVED		mg/L								
Cadmium	0.005 *	NS	NS	NS	0.008	<0.005	NS	NS	NS	NS
Chromium	0.1 *	NS	NS	NS	<0.01	<0.01	NS	NS	NS	NS
Copper		NS	NS	NS	<0.01	<0.01	NS	NS	NS	NS
Nickel	0.1 *	NS	NS	NS	<0.04	<0.04	NS	NS	NS	NS
Selenium	0.05 *	NS	NS	NS	0.02	0.02	NS	NS	NS	NS
Zinc		NS	NS	NS	0.09	0.09	NS	NS	NS	NS
CYANIDE **		mg/L								
Cyanide, Free	0.2	2.07	0.162; <0.01	<0.05	<0.05; 0.4	0.109; 0.24	<0.05	1.66	0.055	0.104
Cyanide, Total		6.68 D2	1.78 D2; 1.6	0.013	8.91 D2; 17	1.04 D2; 1.2	<0.01; <0.01	2.42 D2	0.022	<0.01

AWQS = Aquifer Water Quality Standard

NS = Not Sampled

D2 = Sample required dilution due to high concentration of target analyte

L1 = The associated blank spike recovery was above laboratory acceptance limits

ug/L = microgram per liter

mg/L = milligram per liter

SVOCs = Semi-VOCs

VOCs = Volatile organic compounds

Total trihalomethanes

* AWQS for Total Metals

** Concentrations compared to AWQS for free cyanide for potential risk reasons

Notes: (1) Only detected compounds are shown

(2) Bold indicates concentrations exceeding the AWQSs shown in Table 9

TABLE 5
SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER SAMPLES COLLECTED BY GEOTRANS
20th Street and Factor Avenue WQARF Site, Yuma, AZ

Parameter	AWQS	6/11/2001	6/16/2001							6/25/2001							1/29-30/2002										
		KL-1	MW-1	MW-2	MW-3	MW-101	MW-102A	MW-102B	MW-102C	MW-1	MW-2	MW-3	MW-101	MW-102A	MW-102B	MW-102C	MW-1	MW-2	MW-3	MW-5		MW-6	MW-101	MW-102A	MW-102B	MW-102C	
VOC's		ug/L																									
Tetrachloroethylene (PCE)	5	<0.5	220 D2	390 D2	9.8	4.3	62	410 D2	56	NS	NS	NS	NS	NS	NS	NS	320 D2	420 D2	80	310 D2; 290 D2		120 D2	2.3	75	320 D2	220 D2	
Trichloroethylene (TCE)	5	<0.5	0.95	2.1	<0.5	<0.5	<0.5	0.78	<0.5	NS	NS	NS	NS	NS	NS	NS	0.99	3.5	<0.50	2.3; 2.2		0.92	<0.50	<0.50	12	0.59	
1,1,1-Trichloroethane (1,1,1-TCA)	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.0	1.2	NS	NS	NS	NS	NS	NS	NS	1.6	0.54	<0.50	<0.50; <0.50		<0.50	<0.50	0.92	6.2	6.1	
1,1-Dichloroethylene (1,1-DCE)	7	<1.0 L2	<1.0 L2	<1.0 L2	<1.0 L2	<1.0 L2	<1.0 L2	2 L2	<1.0 L2	NS	NS	NS	NS	NS	NS	NS	1.2 L1	<1.0 L1	<1.0 L1	<1.0; <1.0		<1.0 L1	<1.0	<1.0 L1	1.6 L1	1.4 L1	
1,1-Dichloroethane (1,1-DCA)		<0.5	3.2	1.5	<0.5	<0.5	<0.5	8.2	1.3	NS	NS	NS	NS	NS	NS	NS	6 L1	1.8	<0.50 L1	<0.50 L1; <0.50 L1		<0.50 L1	<0.50 L1	0.89	7	5.3	
Bromodichloromethane	100 #	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.81	NS	NS	NS	NS	NS	NS	NS	<0.50	<0.50	<0.50	<0.50; <0.50		<0.50	<0.50 L1	<0.50	7.3	5	
Dibromochloromethane	100 #	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.62	NS	NS	NS	NS	NS	NS	NS	<0.50	<0.50	<0.50	<0.50; <0.50		<0.50	<0.50	<0.50	6.8	4.3	
Chloroform		<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	1.3	NS	NS	NS	NS	NS	NS	NS	<1.0	3.3	<1.0	1.1; 1		1.1	<1.0	<1.0	6.7	5.9	
Benzene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.1	NS	NS	NS	NS	NS	NS	NS	<0.50	<0.50	<0.50	<0.50; <0.50		<0.50	<0.50	<0.50	0.79	2.3	
Acetone		<10	<10	<10	<10	<10	<10	<10	11	NS	NS	NS	NS	NS	NS	NS	<10	<10	10	<10; <10		<10	<10	11	18	18	
SVOCs		ug/L																									
Phenol		<5	<5	<5	7	7	<5	<5	<5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5		<5	NS	NS	NS	NS	
Bis(2-ethylhexyl) Phthalate		<5	<5	<5	<5	<5	<5	48	62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5		<5	NS	NS	NS	NS	
Butyl Benzyl Phthalate		<5	<5	<5	<5	<5	<5	<5	8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5		<5	NS	NS	NS	NS	
Di-n-octyl Phthalate		<5	<5	<5	<5	<5	<5	5	6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5		<5	NS	NS	NS	NS	
METALS, TOTAL		mg/L																									
Cadmium	0.005	<0.005	<0.005	<0.005	<0.005	NS	<0.005	<0.005	<0.005	NS	NS	NS	NA	NS	NS	NS	NS	NS	NS	<0.005		<0.005	NS	NS	NS	NS	
Chromium	0.1	0.11	<0.01	<0.01	0.01	NS	<0.01	<0.01	<0.01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.01		<0.01	NS	NS	NS	NS	
Copper		<0.01	<0.01	<0.01	<0.01	NS	<0.01	<0.01	0.02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.01		<0.01	NS	NS	NS	NS	
Nickel	0.1	0.09	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.04		<0.04	NS	NS	NS	NS	
Selenium	0.05	<0.005	0.16 M5	0.009 M5	0.2 M5	0.34 M5	0.2 M5	0.097	<0.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.021		0.02	NS	NS	NS	NS	
Zinc		<0.02	<0.02	<0.02	0.03	<0.02	0.04	0.11	0.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.4		0.12	NS	NS	NS	NS	
METALS, DISSOLVED		mg/L																									
Cadmium	0.005 *	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	NS	NS	NS	NA	NS	NS	NS	NS	NS	NS	0.008		<0.005	NS	NS	NS	NS	
Chromium	0.1 *	0.03	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.01		<0.01	NS	NS	NS	NS	
Copper		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.01		<0.01	NS	NS	NS	NS	
Nickel	0.1 *	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.04		<0.04	NS	NS	NS	NS	
Selenium	0.05 *	<0.005	0.092	0.01 M5	0.12 M5	0.46 M5	0.22 M5	0.11 M5	<0.005	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.02		0.02	NS	NS	NS	NS	
Zinc		<0.02	<0.02	<0.02	0.03	NS	0.02	<0.02	0.11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.09		0.09	NS	NS	NS	NS	
CYANIDE **		mg/L																									
Cyanide, Free	0.2	NS	NS	NS	NS	NS	NS	NS	NS	<0.05	0.97	0.25	<0.05	<0.05	<0.05	<0.05	2.07	0.162; <0.01	<0.05	<0.05; 0.4		0.109; 0.24	<0.05	1.66	0.055	0.104	
Cyanide, Total		NS	NS	NS	NS	NS	NS	NS	NS	<0.05	3.4	0.22	<0.05	7.1	12	<0.05	6.68 D2	1.78 D2; 1.6	0.013	8.91 D2; 17		1.04 D2; 1.2	<0.01; <0.01	2.42 D2	0.022	<0.01	

AWQS = Aquifer Water Quality Standard

NS = Not Sampled

D2 = Sample required dilution due to high concentration of target analyte

L1 =The associated blank spike recovery was above laboratory acceptance limits

M5 = Analyte concentration was determined by the method of standard addition (MSA)

ug/L = microgram per liter

mg/L = milligram per liter

VOCs = Volatile organic compounds

SVOCs = Semi-VOCs

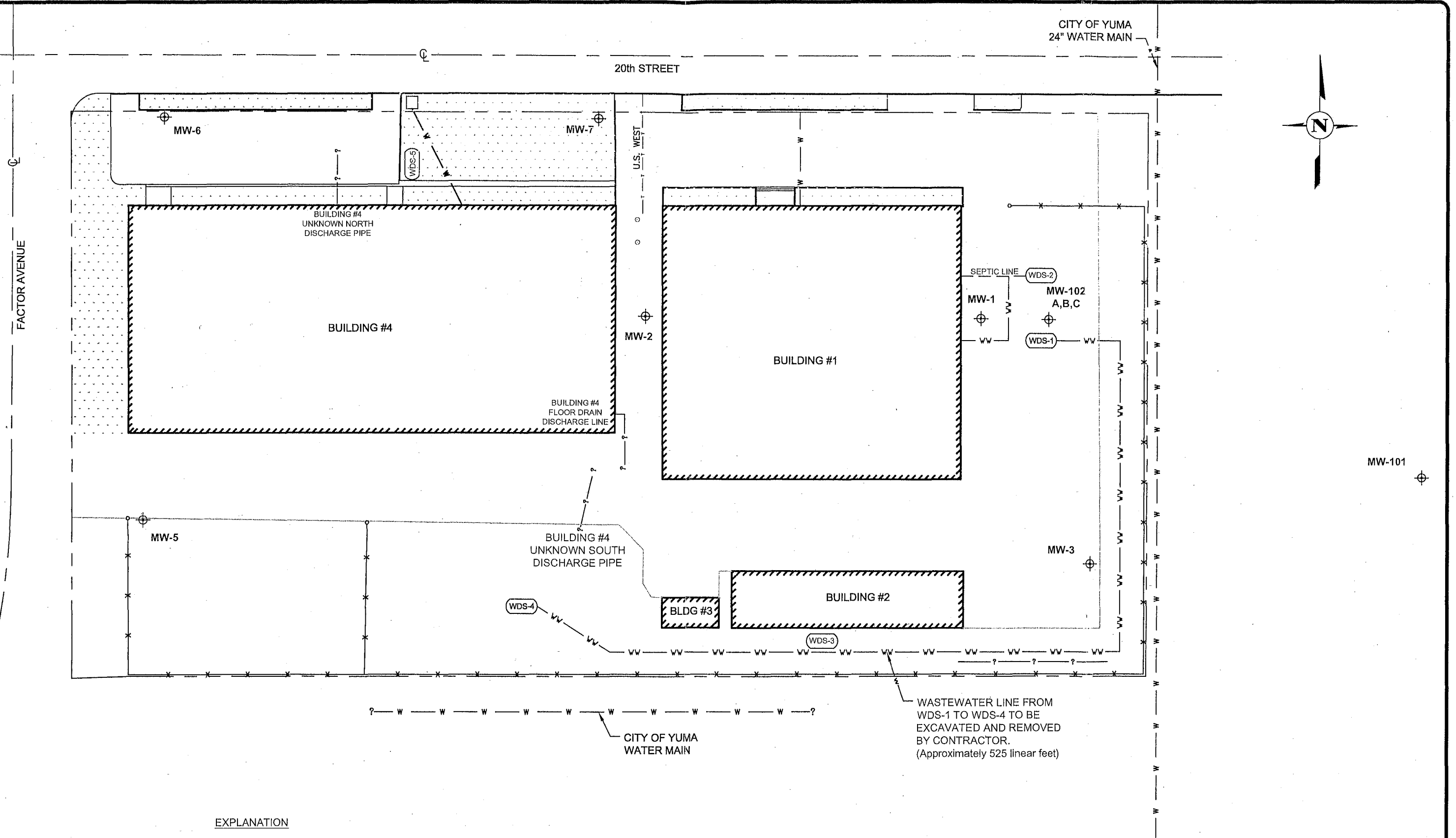
Total trihalomethanes

* AWQS for Total Metals

** Concentrations compared to AWQS for free cyanide for potential risk reasons

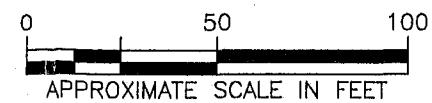
Notes: (1) Only detected compounds are shown


(2) Bold indicates concentrations exceeding the AWQSSs



EXPLANATION

⊕ GROUNDWATER MONITOR WELL



TITLE:		SITE PLAN	
		20TH & FACTOR WQARF SITE	
LOCATION:		YUMA, ARIZONA	
 GeoTrans, Inc. <small>A TETRA TECH COMPANY</small>	CHECKED	KD	FIGURE 2
	DRAFTED	DBS	
	PROJECT	E034-C50	
DATE		4/10/02	



**SOIL VAPOR INVESTIGATION AND
WELL INSTALLATION AND SAMPLING
SEPTEMBER 2008 THROUGH APRIL 2010
20th AND FACTOR WQARF SITE
YUMA, ARIZONA**

July 20, 2010

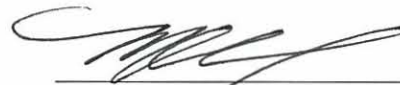
Prepared for:

Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

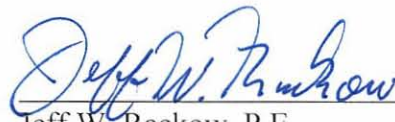


**SOIL VAPOR INVESTIGATION AND
WELL INSTALLATION AND SAMPLING
SEPTEMBER 2008 THROUGH APRIL 2010
20th and Factor WQARF Site
Yuma, Arizona**

The material and data in this report were prepared under the supervision and direction of the undersigned.



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Appendix B	Soil Vapor Monitoring Well Construction Diagrams
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Appendix D	Soil Boring Log for MW-25B; Construction Details for MW-25A and MW-25B; and Well Drillers Report and Well Log for MW-25A and MW-25B
Appendix E	Well Development Details
Appendix F	MW-25A and MW-25 B Survey Reports
Appendix G	Groundwater Analytical Laboratory Reports
Appendix H	Groundwater Sampling Field Data Sheets
Appendix I	Groundwater Hydrographs

1.0 INTRODUCTION

This report documents the results of field activities conducted by GeoTrans, Inc. (GeoTrans) at the 20th and Factor Water Quality Assurance Revolving Fund (WQARF) site in Yuma, Arizona (the Site) during the period of September 2008 through April 2010.

This work was conducted as part of the Arizona Department of Environmental Quality (ADEQ) Arizona Superfund Response Action Contract (ASRAC) Number EV03-0073, Task Assignment Number 04-0049, and ASRAC Number EV09-0100, Task Assignment Number 10-0081. The work described in this report has been conducted in general accordance with the ADEQ-approved *Work Plan and Field Sampling Plan for Remedial Investigations, 20th and Factor WQARF Site, Yuma, Arizona* (Work Plan) (GeoTrans, 2004), the ADEQ-approved *Remedial Investigation and Early Response Actions* (GeoTrans, 2008), and subsequent ADEQ decisions and approvals.

1.1 BACKGROUND

The Site consists of an industrial property (the Property; see Figure 1), and the areas west-northwest and north of the Property. The Property is located in an industrial area on the eastern portion of Yuma, Arizona, which has not been annexed by the City of Yuma. The legal description of the Property location is the N/2 of the SW/4 of Section 34, Township 8 South, Range 23 West of the Gila and Salt River Baseline and Meridian (ADEQ, 1999).

The Property was undeveloped land prior to early 1965. In 1966, the Property was occupied by Houston Photo Products, Inc. The company name was later changed to Houston International, Ltd. (Houston International). From 1966 to 1995, Houston International occupied the Property; thereafter, the Property has been occupied by other businesses, including Houston Fearless 76, Inc., a manufacturer of film-processing machines. Wastewater resulting from film development and/or film manufacturing by Houston International was discharged to five wastewater disposal systems and/or to the ground. Chemicals of concern (COCs) contained in the wastewater may have included chlorinated volatile organic compounds (VOCs) (e.g., tetrachloroethene [PCE], trichloroethene [TCE], and 1,1-dichloroethene [1,1-DCE]), and cyanide compounds, thus resulting in impacts to soil and groundwater underlying the Site, including the parcel immediately east of the Property.

1.2 SOIL VAPOR

GeoTrans completed the following activities:

- September, 2008: Active soil vapor survey, consisting of collection of 30 in-situ soil vapor samples, and collection of soil vapor samples from the following soil vapor monitoring wells (SVMWs): SVMW-2A,B; SVMW-3A,B; and SVMW-4A,B;

- Early October, 2008: Collection of soil vapor samples from: SVMW-2A,B; SVMW-3A,B; and SVMW-4A,B;
- Late October, 2008: Collection of soil vapor samples from: SVMW-2A,B; SVMW-3A,B; and SVMW-4A,B;
- November, 2008: Collection of soil vapor samples from: SVMW-2A,B; SVMW-3A,B; and SVMW-4A,B;
- February, 2009: Installation of the following SVMWs: SVMW-5A,B; SVMW-6A,B; and SVMW-7A,B;
- March, 2009: Collection of soil vapor samples from: SVMW-5A,B; SVMW-6A,B; and SVMW-7A,B;
- February and March, 2010: Installation of the following SVMWs: SVMW-8A through H; SVMW-9A,B; SVMW-10A,B; SVMW-11A,B; and SVMW-12A,B;
- March, 2010: Sampling of: SVMW-1A through D; SVMW-2A,B through 7A,B; SVMW-8A through H; and SVMW-9A,B through SVMW-12A,B;
- Submittal of the collected soil vapor samples for analysis of VOCs using EPA Method TO-15, and cyanides using National Institute for Occupational Safety and Health (NIOSH) Method 6010;
- Management of investigation-derived waste (IDW) generated by SVMW installation activities; and
- Coordination with the ADEQ Project Manager and subcontractors/vendors.

1.3 GROUNDWATER

GeoTrans completed the following activities:

- January, 2009:
 - Collection of depth-to-water measurements from groundwater monitoring well MW-21C;
 - Collection of groundwater samples from wells MW-21C, St. Francis, and Alice Byrne.
- March, 2010: Installation of MW-25A and MW-25B groundwater monitoring wells;
- April, 2010:
 - Collection of depth-to-water measurements from the following monitoring wells: DMW-11; MW-8A,B,C; MW-9A; MW-12A; MW-13A; MW-15A; MW-16A; MW-17A,C; MW-18A; MW-

21A,B,C; MW-23B; MW-24B; MW-25A, B; MW-101A; MW-102B1; and MW-103C;

- Collection of groundwater samples from the following wells: DMW-11; MW-8A,B,C; MW-9A; MW-12A; MW-13A; MW-15A; MW-16A; MW-17A,C; MW-18A; MW-21A,B,C; MW-23B; MW-24B; MW-25A,B; MW-101A; MW-102B1; MW-103C; St. Francis, and Alice Byrne;
- Submittal of the collected groundwater samples for the following analyses: VOCs using U.S. Environmental Protection Agency (EPA) Method 8260B, and cyanides using Standard Method (SM) 4500 CN;
- Management of IDW generated by well installation, development and/or purging activities; and
- Coordination with the ADEQ project manager and subcontractors/vendors.

1.4 DEVIATIONS FROM THE SCOPE OF WORK

There were no deviations from the project scope of work.

1.5 REPORT ORGANIZATION

The above field activities and the corresponding results are presented in this report in chronological order.

2.0 SITE ACTIVITIES – 2008

During 2008, GeoTrans performed the following soil vapor investigation events:

- September, 2008:
 - Active soil vapor survey consisting of collection of 30 in-situ soil vapor samples; and
 - Collection of soil vapor samples from: SVMW-2A,B; SVMW-3A,B; and SVMW-4A,B;
- October, 2008: Collection of two rounds of soil vapor samples from: SVMW-2A,B; SVMW-3A,B; and SVMW-4A,B:
 - October 7, 2008; and
 - October 21, 2008;
- November, 2008: Collection of soil vapor samples from SVMW-2A,B and SVMW-3A,B;

2.1 ACTIVE SOIL VAPOR SURVEY – SEPTEMBER 2008

2.1.1 Methodology

On September 10 through September 12, 2008, GeoTrans conducted an active soil vapor survey at the Site. The active soil vapor survey was generally bounded by 18th Street to the north, the alley between Walnut and Maple Avenues to the west, 20th Street to the south, and Factor Avenue to the east. The survey consisted of collecting 30 soil vapor samples (SVS-1 through SVS-30) at individual locations illustrated on Figure 2. Soil vapor samples were collected using a GeoProbe direct-push drilling rig owned and operated by Johnson Drilling of Fountain Hills, Arizona. The soil vapor samples were collected in accordance with GeoTrans' Standard Operating Procedure (SOP) for an Active Soil Vapor Survey.

At each sample location, samples were collected for VOC analyses only. The clean / decontaminated rod drive pipe, with an expendable point (rubber nipple), was advanced to a total depth of approximately 5 feet below ground surface (bgs). Once at 5 feet bgs, the rod drive pipe was retracted from the expendable point to allow the collection of a soil vapor sample in the created void. Clean, unused plastic tubing was then inserted for collection of the sample. Using a vacuum pump, each location was purged a total of two probe volumes from the piping, or approximately 16 liters of air (0.56 cubic feet). Purge volumes were calculated in the field using the volume of a cylinder equation. The purge rate used to evacuate the two well volumes was approximately 1.0 liters per minute (L/min). Following the purging at each location, soil vapor samples were collected in 1-L SUMMA containers.

2.1.2 Results

The discussion of soil vapor sampling results in this report includes the following Site COCs only: PCE, TCE, 1,1-DCE, and cyanide. Concentrations of these select Site COCs are compared to the following regulatory limits: EPA Residential and Industrial Regional Screening Levels (RSLs) (formerly Preliminary Remediation Goals [PRGs]), and 1-hour, 24-hour, and annual Arizona Ambient Air Quality Guidelines (AAAQGs). Analytical results from this event are presented in Table 1, illustrated on Figure 2, and the laboratory reports are included in Appendix A. The following is a discussion of the analytical results for samples collected as part of the active soil vapor survey at SVS-1 through SVS-30.

- PCE was detected above its laboratory reporting limit (LRL) in 14 of the 30 soil vapor samples collected, with concentrations ranging from 10 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in SVS-7 to $4,800 \mu\text{g}/\text{m}^3$ in SVS-27. The highest concentrations, ranging from $1,400 \mu\text{g}/\text{m}^3$ to $4,800 \mu\text{g}/\text{m}^3$, were detected along Rail Avenue and Factor Avenue, north of 20th Street, but south of 19th Street. All detected concentrations exceeded the PCE EPA Residential and Industrial RSLs of $0.41 \mu\text{g}/\text{m}^3$ and $2.1 \mu\text{g}/\text{m}^3$, respectively, and annual AAAQG of $1.7 \mu\text{g}/\text{m}^3$. LRLs in all 16 samples with non-detect concentrations of PCE ranged from $7.9 \mu\text{g}/\text{m}^3$ to $8.8 \mu\text{g}/\text{m}^3$, thus exceeding these regulatory limits.
- TCE was detected above LRLs in 9 of the 30 soil vapor samples collected, with concentrations ranging from $7.4 \mu\text{g}/\text{m}^3$ in sample SVS-24 to $86 \mu\text{g}/\text{m}^3$ in sample SVS-26. The highest concentrations, ranging from $41 \mu\text{g}/\text{m}^3$ to $86 \mu\text{g}/\text{m}^3$, were detected along Rail Avenue, north of 20th Street, but south of 19th Street. All detected concentrations exceeded the TCE EPA Residential and Industrial RSLs of $1.2 \mu\text{g}/\text{m}^3$ and $6.1 \mu\text{g}/\text{m}^3$, respectively, and annual AAAQG of $0.58 \mu\text{g}/\text{m}^3$. LRLs in all 21 samples with non-detect concentrations of TCE ranged from $6.3 \mu\text{g}/\text{m}^3$ to $6.8 \mu\text{g}/\text{m}^3$, thus exceeded these regulatory limits.
- 1,1-DCE was not detected in any of the collected soil vapor samples at or above the LRLs, ranging from $4.6 \mu\text{g}/\text{m}^3$ to $12 \mu\text{g}/\text{m}^3$. These LRLs were below the established regulatory limits for 1,1-DCE.

2.2 SAMPLING OF SVMWS – SEPTEMBER 2008

2.2.1 Methodology

On September 12, 2008, during the active soil vapor survey discussed in the section above, soil vapor samples were also collected from wells SVMW-2A,B, SVMW-3A,B, and SVMW-4A,B that were installed in August 2008. Prior to collecting the samples, two well casing volumes were purged from each of these dual-nested SVMWs. A total of approximately 8 cubic feet of vapors were purged from each of the “A” wells, and approximately 16 cubic feet were purged from each of the “B” wells. Purge volumes were calculated in the field using the volume of a cylinder equation.

Samples were collected for both VOC and cyanide analyses. Samples for VOC analyses were collected using SUMMA canisters, and the sample collection method did not vary between the sampling events. A laboratory-provided, pre-cleaned, evacuated 1-L SUMMA canister and individual flow regulator was placed in-line at the well and opened to collect a sample. The canisters and flow regulators are maintained and calibrated by the analytical laboratory.

Samples for cyanide analyses were collected using laboratory-provided soda lime sorbent tubes, sampling pumps, and flow regulators. The sorbent tube was located “upstream” of the pump. The sampling pumps and flow regulators are maintained and calibrated by the analytical laboratory. At each sampling location, a sampling pump with associated tubing and an in-line air flow meter was connected to the SVMW. The sampling rate for collecting the cyanide samples was pre-determined by the laboratory to be 0.15 L/min.

New polyethylene flexible tubing was used at each SVMW sampling location. Air-tight connections were made at all fittings and sampling ports/valves on the sampling train. The vapor sampling pump was purged between individual SVMWs.

Samples for cyanide analyses were collected by drawing 3.2 to 4.2 liters of soil vapors for each sample.

2.2.2 Results

The VOC samples were analyzed using EPA Method TO-15. Cyanide analyses consisted of analyses for cyanide ion and cyanide ion-particulate by NIOSH Method 6010. Hydrogen cyanide and hydrogen cyanide-particulate were then calculated and reported by the laboratory using analytical results for cyanide ion and cyanide ion-particulate. For purposes of this report, we will only discuss the hydrogen cyanide, as regulatory guidelines (RSLs and AAQGG) have not been established for cyanide ion.

Analytical results are presented in Table 2, along with historical data compiled since December 2003. The corresponding laboratory reports are included in Appendix A. Since there were no detects of cis-1,2-DCE or trans-1,2-DCE in any of the collected samples, these two analytes are not included in Table 2.

2.2.2.1 A-Wells

- PCE was detected above its LRL in 2 of the 3 wells sampled: 21 $\mu\text{g}/\text{m}^3$ in SVMW-3A and 11 $\mu\text{g}/\text{m}^3$ in SVMW-4A. Both concentrations exceeded the PCE EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$. The LRL of 7.5 $\mu\text{g}/\text{m}^3$ in the SVMW-2A sample with non-detect concentrations of PCE exceeded the regulatory limits.
- TCE and 1,1-DCE were not detected at or above their LRLs in the collected samples. The LRL for TCE (5.9 $\mu\text{g}/\text{m}^3$ to 6.6 $\mu\text{g}/\text{m}^3$) exceeded its regulatory limit; however, LRLs for 1,1-DCE were below the regulatory limits.

- Hydrogen cyanide was calculated to be present in 1 of the 3 samples collected: 121 $\mu\text{g}/\text{m}^3$ in SVMW-3A. This concentration is above the EPA Residential and Industrial RSLs of 3.1 $\mu\text{g}/\text{m}^3$ and 13 $\mu\text{g}/\text{m}^3$, respectively. No annual AAAQG has been established for hydrogen cyanide; however, the detected concentration exceeded both the 1-hour and 24-hour AAAQG for hydrogen cyanide of 100 $\mu\text{g}/\text{m}^3$ and 40 $\mu\text{g}/\text{m}^3$, respectively. The calculated hydrogen cyanide LRLs for the two samples with non-detect concentrations (48.1 $\mu\text{g}/\text{m}^3$ in SVMW-2A and 63.1 $\mu\text{g}/\text{m}^3$ in SVMW-4A) exceeded the above regulatory limits, as well.

2.2.2.2 B-Wells

- PCE was detected above its LRL in 2 of the 3 wells sampled: 28 $\mu\text{g}/\text{m}^3$ in SVMW-3B and 12 $\mu\text{g}/\text{m}^3$ in SVMW-4B. Both concentrations exceeded the PCE EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$. The PCE LRL of 7.8 $\mu\text{g}/\text{m}^3$ for SVMW-2B (with non-detect concentrations of PCE) exceeded the regulatory limits.
- TCE and 1,1-DCE were not detected at or above their LRLs. The LRL for TCE (6.2 $\mu\text{g}/\text{m}^3$ to 6.6 $\mu\text{g}/\text{m}^3$) exceeded its regulatory limit; however, the LRLs for 1,1-DCE were below the regulatory limits.
- Hydrogen cyanide was calculated to be present in 1 of the 3 samples collected: 122 $\mu\text{g}/\text{m}^3$ in SVMW-2B. This concentration exceeded the EPA Residential and Industrial RSLs of 3.1 $\mu\text{g}/\text{m}^3$ and 13 $\mu\text{g}/\text{m}^3$, respectively. No annual AAAQG has been established for hydrogen cyanide; however, the detected concentration exceeded both the 1-hour and 24-hour AAAQG for hydrogen cyanide of 100 $\mu\text{g}/\text{m}^3$ and 40 $\mu\text{g}/\text{m}^3$, respectively. The calculated hydrogen cyanide LRL (63.1 $\mu\text{g}/\text{m}^3$) for the two samples with non-detect hydrogen cyanide concentrations (SVMW-3B and SVMW-4B) exceeded the above regulatory limits, as well.

2.3 SAMPLING OF SVMWS – OCTOBER 7, 2008

2.3.1 Methodology

On October 7, 2008, soil vapor samples were collected from wells SVMW-2A,B, SVMW-3A,B, and SVMW-4A,B for VOC and cyanide analyses, as follows.

Samples were collected for both VOC and cyanide analyses. Samples for VOC analyses were collected using SUMMA canisters, and the sample collection method did not vary between the sampling events. A laboratory-provided, pre-cleaned, evacuated 1-L SUMMA canister and individual flow regulator was placed in-line at the well and opened to collect a sample. The canisters and flow regulators are maintained and calibrated by the analytical laboratory.

Samples for cyanide analyses were collected using laboratory-provided soda lime sorbent tubes, sampling pumps, and flow regulators. The sorbent tube was located “upstream” of the

pump. The sampling pumps and flow regulators are maintained and calibrated by the analytical laboratory. At each sampling location, a sampling pump with associated tubing and an in-line air flow meter was connected to the SVMW. The sampling rate for collecting the cyanide samples was pre-determined by the laboratory to be 0.15 L/min.

New polyethylene flexible tubing was used at each SVMW sampling location. Air-tight connections were made at all fittings and sampling ports/valves on the sampling train. The vapor sampling pump was purged between individual SVMWs.

Wells were not purged before sampling. Samples for cyanide analyses were collected by drawing 3.2 liters of soil vapors for each sample.

2.3.2 Results

The collected samples were analyzed as discussed in Section 2.2.2 above. Analytical results are presented in Table 2, along with historical data compiled since December 2003. The corresponding laboratory reports are included in Appendix A.

2.3.2.1 A-Wells

- PCE was detected above its LRL in all 3 A-wells sampled: $5.1 \mu\text{m}^3$ in SVMW-2A; $54 \mu\text{m}^3$ in SVMW-3A; and $12 \mu\text{m}^3$ in SVMW-4A. All three concentrations exceeded the PCE EPA Residential and Industrial RSLs of $0.41 \mu\text{g}/\text{m}^3$ and $2.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $1.7 \mu\text{g}/\text{m}^3$.
- TCE was detected above its LRL in 2 of the 3 A-wells sampled: $18 \mu\text{m}^3$ in SVMW-2A and $70 \mu\text{m}^3$ in SVMW-3A. Both concentrations exceeded the TCE EPA Residential and Industrial RSLs of $1.2 \mu\text{g}/\text{m}^3$ and $6.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $0.58 \mu\text{g}/\text{m}^3$. The LRL of $2.69 \mu\text{g}/\text{m}^3$ for SVMW-4A (with non-detect TCE concentrations) exceeded the EPA Residential RSL and the annual AAAQG limits.
- 1,1-DCE was not detected at or above the LRL of $1.98 \mu\text{g}/\text{m}^3$. The LRL was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above their laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for all three samples ($65.6 \mu\text{g}/\text{m}^3$) exceeded the EPA RSLs and 24-hour AAAQG limits.

2.3.2.2 B-Wells

- PCE was detected above its LRL in 2 of the 3 B-wells sampled: $130 \mu\text{m}^3$ in SVMW-3B and $24 \mu\text{m}^3$ in SVMW-4B. Both concentrations exceeded the PCE EPA Residential and Industrial RSLs of $0.41 \mu\text{g}/\text{m}^3$ and $2.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $1.7 \mu\text{g}/\text{m}^3$. The PCE LRL of 3.39

$\mu\text{g}/\text{m}^3$ in the SVMW-2B sample (with non-detect concentrations of PCE) exceeded these regulatory limits.

- TCE was detected above its LRL in 2 of the 3 A-wells sampled: $37 \mu/\text{m}^3$ in SVMW-3B and $5.9 \mu/\text{m}^3$ in SVMW-4B. Both concentrations exceeded the TCE EPA Residential and Industrial RSLs of $1.2 \mu\text{g}/\text{m}^3$ and $6.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $0.58 \mu\text{g}/\text{m}^3$. The TCE LRL of $2.69 \mu\text{g}/\text{m}^3$ in SVMW-2B (with non-detect concentrations of PCE) exceeded the EPA Residential RSL and the annual AAAQG limits.
- 1,1-DCE was not detected at or above the LRL of $1.98 \mu\text{g}/\text{m}^3$. The LRL was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above their laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. It should be noted that the calculated hydrogen cyanide LRL for all three samples ($65.6 \mu\text{g}/\text{m}^3$) exceeded the EPA RSLs and the 24-hour AAAQG limits.

2.4 SAMPLING OF SVMWS – OCTOBER 21, 2008

2.4.1 Methodology

On October 21, 2008, soil vapor samples were collected from wells SVMW-2A,B, SVMW-3A,B, and SVMW-4A,B as follows.

Samples were collected for both VOC and cyanide analyses. Samples for VOC analyses were collected using SUMMA canisters, and the sample collection method did not vary between the sampling events. A laboratory-provided, pre-cleaned, evacuated 1-L SUMMA canister and individual flow regulator was placed in-line at the well and opened to collect a sample. The canisters and flow regulators are maintained and calibrated by the analytical laboratory.

Samples for cyanide analyses were collected using laboratory-provided soda lime sorbent tubes, sampling pumps, and flow regulators. The sorbent tube was located “upstream” of the pump. The sampling pumps and flow regulators are maintained and calibrated by the analytical laboratory. At each sampling location, a sampling pump with associated tubing and an in-line air flow meter was connected to the SVMW. The sampling rate for collecting the cyanide samples was pre-determined by the laboratory to be 0.15 L/min.

New polyethylene flexible tubing was used at each SVMW sampling location. Air-tight connections were made at all fittings and sampling ports/valves on the sampling train. The vapor sampling pump was purged between individual SVMWs.

To evaluate impacts of well purging on concentrations of analytes in the collected samples, the wells were first sampled without purging. Following the collection of the pre-purge samples, each of the SVMWs was purged a total of two well volumes (8 liters for the “A” wells and 16 liters for the “B” wells) and then sampled. Samples for cyanide analyses were collected by drawing 3.2 liters of soil vapors from each well.

2.4.2 Results

The collected samples were analyzed as discussed in Section 2.2.2 above. Analytical results are presented in Table 2, along with historical data compiled since December 2003. The corresponding laboratory reports are included in Appendix A.

2.4.2.1 Sampling Without Purging

A-Wells:

- PCE was detected above its LRL in all 3 wells: 8.8 $\mu\text{g}/\text{m}^3$ in SVMW-2A; 34 $\mu\text{g}/\text{m}^3$ in SVMW-3A; and 23 $\mu\text{g}/\text{m}^3$ SVMW-4A. All three concentrations exceeded the PCE EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$.
- TCE and 1,1-DCE were not detected above their LRLs in any of the samples. The LRL for TCE (6.0 $\mu\text{g}/\text{m}^3$ to 6.5 $\mu\text{g}/\text{m}^3$) exceeded its EPA RSL and AAAQD limits; however, LRLs for 1,1-DCE (4.4 $\mu\text{g}/\text{m}^3$ to 4.8 $\mu\text{g}/\text{m}^3$) were below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above their laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. It should be noted that the calculated hydrogen cyanide LRL for all three samples (65.6 $\mu\text{g}/\text{m}^3$) exceeded the EPA RSLs and the 24-hour AAAQG limits.

B-Wells:

- PCE was detected above its LRL in all 3 wells: 12 $\mu\text{g}/\text{m}^3$ in SVMW-2A; 34 $\mu\text{g}/\text{m}^3$ in SVMW-3A; and 25 $\mu\text{g}/\text{m}^3$ SVMW-4A. All three concentrations exceeded the PCE EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$.
- TCE and 1,1-DCE were not detected above their LRLs. The LRL for TCE (6.2 $\mu\text{g}/\text{m}^3$ to 6.9 $\mu\text{g}/\text{m}^3$) exceeded its EPA RSL and AAAQD limits; however, the LRLs for 1,1-DCE (4.5 $\mu\text{g}/\text{m}^3$ to 5.1 $\mu\text{g}/\text{m}^3$) were below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above their laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. It should be noted that the calculated hydrogen cyanide LRL for all three samples (65.6 $\mu\text{g}/\text{m}^3$) exceeded the EPA RSLs and the 24-hour AAAQG limits.

2.4.2.2 Sampling with Purging

A-Wells:

- PCE was detected above its LRL in all 3 wells: 13 $\mu\text{g}/\text{m}^3$ in SVMW-2A; 33 $\mu\text{g}/\text{m}^3$ in SVMW-3A; and 50 $\mu\text{g}/\text{m}^3$ in SVMW-4A. All three concentrations exceeded the PCE EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$.
- TCE and 1,1-DCE were not detected at or above their LRLs. The LRL for TCE (6.4 $\mu\text{g}/\text{m}^3$ to 6.8 $\mu\text{g}/\text{m}^3$) exceeded its EPA RSL and AAAQD limits; however, reporting limits for 1,1-DCE (4.7 $\mu\text{g}/\text{m}^3$ to 5.0 $\mu\text{g}/\text{m}^3$) were below the established regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above their laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for all three samples (65.6 $\mu\text{g}/\text{m}^3$) exceeded the EPA RSLs and the 24-hour AAAQG limits.

B-Wells:

- PCE was detected above its LRL in all 3 wells: 9.9 $\mu\text{g}/\text{m}^3$ in SVMW-2B; 38 $\mu\text{g}/\text{m}^3$ in SVMW-3B; and 23 $\mu\text{g}/\text{m}^3$ in SVMW-4B. All three concentrations exceeded the EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$.
- TCE was detected above its LRL in 1 of 3 wells: 8.7 $\mu\text{g}/\text{m}^3$ in SVMW-3B. This concentration exceeded the EPA Residential and Industrial RSLs of 1.2 $\mu\text{g}/\text{m}^3$ and 6.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 0.58 $\mu\text{g}/\text{m}^3$. The LRL for TCE (6.2 $\mu\text{g}/\text{m}^3$ and 6.3 $\mu\text{g}/\text{m}^3$) in SVMW-2B and SVMW-4B samples (with non-detect TCE concentrations) exceeded its EPA RSLs and AAAQD limits.
- 1,1-DCE was not detected at or above the LRLs of 4.5 $\mu\text{g}/\text{m}^3$ and 4.6 $\mu\text{g}/\text{m}^3$. The LRLs for 1,1-DCE were below the established regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for all three samples (65.6 $\mu\text{g}/\text{m}^3$) exceeded the EPA RSLs and 24-hour AAAQG limits.

2.5 SAMPLING OF SVMWS – NOVEMBER 2008

2.5.1 Methodology

On November 12, 2008, soil vapor samples were collected from wells SVMW-2A,B and SVMW-3A,B, as follows.

Samples were collected for both VOC and cyanide analyses. Samples for VOC analyses were collected using SUMMA canisters, and the sample collection method did not vary between the sampling events. A laboratory-provided, pre-cleaned, evacuated 1-L SUMMA canister and individual flow regulator was placed in-line at the well and opened to collect a sample. The canisters and flow regulators are maintained and calibrated by the analytical laboratory.

Samples for cyanide analyses were collected using laboratory-provided soda lime sorbent tubes, sampling pumps, and flow regulators. The sorbent tube was located “upstream” of the pump. The sampling pumps and flow regulators are maintained and calibrated by the analytical laboratory. At each sampling location, a sampling pump with associated tubing and an in-line air flow meter was connected to the SVMW. The sampling rate for collecting the cyanide samples was pre-determined by the laboratory to be 0.15 L/min.

New polyethylene flexible tubing was used at each SVMW sampling location. Air-tight connections were made at all fittings and sampling ports/valves on the sampling train. The vapor sampling pump was purged between individual SVMWs.

The wells were not purged before sampling. Samples for cyanide analyses were collected by drawing 20 liters of soil vapors from each well.

2.5.2 Results

The collected samples were analyzed as discussed in Section 2.2.2 above. Analytical results are presented in Table 2, along with historical data compiled since December 2003. The corresponding laboratory reports are included in Appendix A.

2.5.2.1 A-Wells

- PCE was detected above its LRL in 1 of the 2 samples collected: 24 $\mu\text{g}/\text{m}^3$ in SVMW-3A. This concentration exceeded the EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$. The PCE LRL of 3.39 $\mu\text{g}/\text{m}^3$ in SVMW-2A (i.e., sample with non-detect concentration of PCE) exceeded these regulatory limits.
- TCE was detected above its LRL in 1 of the 2 samples collected: 4.5 $\mu\text{g}/\text{m}^3$ in SVMW-3A. This concentration exceeded the EPA Residential and Industrial RSLs of 1.2 $\mu\text{g}/\text{m}^3$ and 6.1 $\mu\text{g}/\text{m}^3$, respectively, and annual AAAQG of 0.58 $\mu\text{g}/\text{m}^3$. The TCE LRL of 2.69 $\mu\text{g}/\text{m}^3$ in SVMW-2A (i.e., sample with non-detect concentration of PCE) exceeded these regulatory limits.

- 1,1-DCE was not detected at or above the LRL of 1.98 $\mu\text{g}/\text{m}^3$. The LRL for 1,1-DCE was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for both samples (7.78 $\mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL limit of 13 $\mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of 3.1 $\mu\text{g}/\text{m}^3$.

2.5.2.2 B-Wells

- PCE was detected above its LRL in both wells: 6.8 $\mu\text{g}/\text{m}^3$ in SVMW-2B and 81 $\mu\text{g}/\text{m}^3$ in SVMW-3B. Both concentrations exceeded the EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$.
- TCE was detected above its LRL in 1 of the 2 samples collected: 12 $\mu\text{g}/\text{m}^3$ in SVMW-3B. This concentration exceeded the EPA Residential and Industrial RSLs of 1.2 $\mu\text{g}/\text{m}^3$ and 6.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 0.58 $\mu\text{g}/\text{m}^3$. The TCE LRL of 2.69 $\mu\text{g}/\text{m}^3$ in the SVMW-2B sample (i.e., sample with non-detect concentration of PCE) exceeded the EPA Residential RSL and the AAAQG limits.
- 1,1-DCE was not detected at or above the LRL of 1.98 $\mu\text{g}/\text{m}^3$. The LRL for 1,1-DCE was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for both samples (7.78 $\mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of 13 $\mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of 3.1 $\mu\text{g}/\text{m}^3$.

3.0 SITE ACTIVITIES – 2009

During 2009, GeoTrans conducted groundwater monitoring and sampling, installed SVMWs, and conducted soil vapor sampling subsequent to the well installations.

3.1 GROUNDWATER MONITORING AND SAMPLING EVENT – JANUARY 2009

3.1.1 Groundwater Elevation Measurements and Flow Conditions

In January 2009, GeoTrans measured depth to water in groundwater monitoring well MW-21C. Depth-to-groundwater measurements were not recorded for the two school production wells at St. Francis and Alice Byrne schools. Because only one water elevation measurement was collected in January 2009, groundwater flow conditions during the January 2009 could not be calculated. Depth-to-groundwater measurements and groundwater elevations for the period October 1992 through April 2010 are provided in Table 3.

3.1.2 Groundwater Sampling

In January 2009, GeoTrans sampled one monitoring well, MW-21C, and two production wells, Alice Byrne and St. Francis. The collected samples were analyzed for VOCs and cyanides. All LRLs were below the respective Aquifer Water Quality Standards (AWQSs). The corresponding laboratory reports are included in Appendix G, and copies of the completed groundwater sampling field data sheets are provided in Appendix H.

3.2 INSTALLATION OF DUAL-NESTED SOIL VAPOR MONITORING WELLS

On February 16 and 17, 2009, GeoTrans performed oversight of the drilling and installation of dual-nested SVMW-5A,B, SVMW-6A,B, and SVMW-7A,B. These wells are located on the west side of Maple Avenue, south of 17th Place (across from the Harvest Preparatory School), on 18th Street (immediately south of the school), and on 18th Street (immediately east of Walnut Avenue and the school), respectively.

Locations of these new and the existing Site SVMWs are illustrated on Figure 3; construction diagrams of the new wells are provided in Appendix B. All drilling locations were air-knifed to depths of 5 feet bgs, followed by auger drilling to total depths.

These dual-nested, shallow SVMWs were drilled to a depth of 12 feet bgs. The wells were then constructed using 1-inch, Schedule-40 polyvinyl chloride (PVC) casing and 1-inch, Schedule 40, 0.020-inch machine-slotted PVC screen. Wells SVMW-5A, SVMW-6A, and SVMW-7A were constructed to a total depth of 5 feet bgs and were screened from depths of 4.5 feet to 5 feet bgs. Wells SVMW-5B, SVMW-6B, and SVMW-7B were constructed to a total depth of 10 feet bgs and were screened from depths of 9.5 feet to 10 feet bgs.

Construction details of the dual-nested shallow SVMWs are shown on Figure B-1 in Appendix B.

3.3 INVESTIGATION-DERIVED WASTE MANAGEMENT

The drill cuttings were the only major IDW category generated during the SVMW drilling and installation. Soil cuttings were transported from each drilling site to the Houston facility and placed in an Arizona Department of Transportation (ADOT)-approved roll-off bin. These drill cuttings were combined with drill cuttings from the March 2010 installation of groundwater monitoring wells (see Section 4.3.4). The IDW was sampled and profiled, and then disposed of at the Copper Mountain Landfill in Wellton, Arizona. The corresponding laboratory reports and disposal documentation are provided in Appendix C.

3.4 SAMPLING OF SVMWS – MARCH 2009

3.4.1 Methodology

On March 8 through 10, 2009, soil vapor samples were collected from wells SVMW-5A,B; SVMW-6A,B; and SVMW-7A,B as follows.

The samples were collected for both VOC and cyanide analyses. Samples for VOC analyses were collected using SUMMA canisters, and the sample collection method did not vary between the sampling events. A laboratory-provided, pre-cleaned, evacuated 1-L SUMMA canister and individual flow regulator was placed in-line at the well and opened to collect a sample. The canisters and flow regulators are maintained and calibrated by the analytical laboratory.

Samples for cyanide analyses were collected using laboratory-provided soda lime sorbent tubes, sampling pumps, and flow regulators. The sorbent tube was located “upstream” of the pump. The sampling pumps and flow regulators are maintained and calibrated by the analytical laboratory. At each sampling location, a sampling pump with associated tubing and an in-line air flow meter was connected to the SVMW. The sampling rate for collecting the cyanide samples was pre-determined by the laboratory to be 0.15 L/min.

New polyethylene flexible tubing was used at each SVMW sampling location. Air-tight connections were made at all fittings and sampling ports/valves on the sampling train. The vapor sampling pump was purged between individual SVMWs.

Samples for cyanide analyses were collected by drawing 20 liters of soil vapors from each well.

3.4.2 Results

The collected samples were analyzed as discussed in Section 2.2.2 above. Analytical results are shown in Table 2, along with all historical soil vapor concentrations compiled since December 2003. Copies of the laboratory reports for are provided in Appendix A.

3.4.2.1 A-Wells

- PCE was not detected at or above its LRL of 17 $\mu\text{g}/\text{m}^3$ in any of the 3 wells sampled. The LRL exceeded the EPA RSLs and annual AAAQG limits.

- TCE was not detected at or above its LRL of 13.4 $\mu\text{g}/\text{m}^3$ in any of the 3 wells. The LRL exceeded the EPA RSLs and annual AAAQG limits.
- 1,1-DCE was not detected at or above the LRLs of 9.91 $\mu\text{g}/\text{m}^3$ and 10.1 $\mu\text{g}/\text{m}^3$. The LRLs for 1,1-DCE was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for all 3 samples (7.78 $\mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of 13 $\mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of 3.1 $\mu\text{g}/\text{m}^3$.

3.4.2.2 B-Wells

- PCE was detected above its LRL in 2 of the 3 wells sampled: 6.3 $\mu\text{g}/\text{m}^3$ in SVMW-5B and 24 $\mu\text{g}/\text{m}^3$ in SVMW-6B. The concentrations exceeded the EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$. The LRL in SVMW-7B (with non-detect PCE concentration) exceeded the EPA RSLs and annual AAAQG limits.
- TCE was detected above its LRL in 2 of 3 wells samples: 3.6 $\mu\text{g}/\text{m}^3$ in SVMW-5B and 29 $\mu\text{g}/\text{m}^3$ in SVMW-7B. These concentrations exceeded the EPA Residential RSLs of 1.2 $\mu\text{g}/\text{m}^3$ and the annual AAAQG of 0.58 $\mu\text{g}/\text{m}^3$. The LRL in SVMW-6B (with non-detect TCE concentration) exceeded the EPA RSLs and annual AAAQG limits.
- 1,1-DCE was not detected at or above the LRLs of 4.0 $\mu\text{g}/\text{m}^3$ and 9.9 $\mu\text{g}/\text{m}^3$. The LRLs for 1,1-DCE was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for all 3 samples (7.78 $\mu\text{g}/\text{m}^3$) exceeded the EPA Residential RSL limit of 3.1 $\mu\text{g}/\text{m}^3$.

4.0 SITE ACTIVITIES – 2010

During 2010, Geotrans installed soil vapor monitoring wells, groundwater monitoring wells, and also conducted monitoring and sampling events at SVMWs and MWs.

4.1 INSTALLATION OF SOIL VAPOR MONITORING WELLS – FEBRUARY 2010

4.1.1 Dual-Nested Wells

From February 26 to March 2, 2010, GeoTrans performed oversight of the drilling and installation of dual-nested SVMW-9A,B, SVMW-10A,B, SVMW-11A,B, and SVMW-12A,B. Wells SVMW-9A,B and SVMW-10A,B were installed on the west side of the Property, along Factor Avenue. SVMW-11A,B was installed on the east side of Rail Avenue, approximately 45 feet north of the dead-end of Rail Avenue, south of the existing groundwater monitoring well MW-22. SVMW-12A,B was installed further north along the east side of Rail Avenue, 270 feet south of 18th Place.

Locations of these new SVMWs are illustrated on Figure 3; construction diagrams of the new wells are provided in Appendix B. All drilling locations were air-knifed to depths of 5 feet bgs, followed by auger drilling to total depths.

These dual-nested, shallow SVMWs were drilled to a depth of 12 feet bgs. The wells were then constructed using 1-inch, Schedule-40 polyvinyl chloride (PVC) casing and 1-inch, Schedule 40, 0.020-inch machine-slotted PVC screen. Wells SVMW-9A, SVMW-10A, SVMW-11A, and SVMW-12A were constructed to a total depth of 5 feet bgs and were screened from depths of 4.5 feet to 5 feet bgs. Wells SVMW-9B, SVMW-10B, SVMW-11B, and SVMW-12B were constructed to a total depth of 10 feet bgs and were screened from depths of 9.5 feet to 10 feet bgs.

Construction details of the dual-nested shallow SVMWs are shown on Figure B-1 in Appendix B.

4.1.2 Multi-Nested Well

On February 24 to 26, 2010, GeoTrans performed oversight of the drilling and installation of one multi-nested well SVMW-8A through H. The well was installed on the east side of Walnut Avenue, just south of groundwater monitoring well cluster MW-8A,B,C. The wells were installed using 1-inch, Schedule-40 PVC casing and 1-inch, Schedule-40, 0.020-inch machine-slotted PVC screen. The depths of multi-nested SVMW probes were set at 5 feet and 10 feet bgs, and then at 10-foot intervals to first encountered groundwater, located approximately 70 feet bgs, just above measured groundwater level in the vicinity of the wells. Each well has a 2.5-foot screen interval. Construction details of the multi-nested SVMW are shown on Figure B-2 in Appendix B.

4.1.3 Investigation-Derived Waste Management

The drill cuttings were the only major IDW category generated during the SVMW drilling and installation. Soil cuttings were transported from each drilling site to the Houston facility and placed in an ADOT-approved roll-off bin. These drill cuttings were combined with drill cuttings from the March 2010 installation of groundwater monitoring wells (see Section 4.3.4). The IDW was sampled and profiled, and then disposed of at the Copper Mountain Landfill in Wellton, Arizona. The corresponding laboratory reports and disposal documentation are provided in Appendix C.

4.2 SAMPLING OF SVMWS – MARCH 2010

4.2.1 Methodology

On March 8 through 11, 2010, GeoTrans collected soil vapor samples from the following 32 SVMWs without purging:

- 12 A-wells: SVMW-1A through SVMW-12A;
- 12 B-wells: SVMW-1B through SVMW-12B;
- 2 C-wells: SVMW-1C and SVMW-8C;
- 2 D-wells: SVMW-1D and SVMW-8D;
- 1 E-well: SVMW-8E;
- 1 F-well: SVMW-8F;
- 1-G-well: SVMW-8G; and
- 1 H-well: SVMW-8H.

The samples were collected for both VOC and cyanide analyses. Samples for VOC analyses were collected using SUMMA canisters, and the sample collection method did not vary between the sampling events. A laboratory-provided, pre-cleaned, evacuated 1-L SUMMA canister and individual flow regulator was placed in-line at the well and opened to collect a sample. The canisters and flow regulators are maintained and calibrated by the analytical laboratory.

Samples for cyanide analyses were collected using laboratory-provided soda lime sorbent tubes, sampling pumps, and flow regulators. The sorbent tube was located “upstream” of the pump. The sampling pumps and flow regulators are maintained and calibrated by the analytical laboratory. At each sampling location, a sampling pump with associated tubing and an in-line air flow meter was connected to the SVMW. The sampling rate for collecting the cyanide samples was pre-determined by the laboratory to be 0.15 L/min.

New polyethylene flexible tubing was used at each SVMW sampling location. Air-tight connections were made at all fittings and sampling ports/valves on the sampling train. The vapor sampling pump was purged between individual SVMWs.

Samples for cyanides were collected by drawing 20 liters of soil vapors from each well.

4.2.2 Results

The collected samples were analyzed as described in Section 2.2.2 above. Analytical results are presented in Table 2, along with historical data compiled since December 2003, and also illustrated on Figure 4. The corresponding laboratory reports are included in Appendix A.

4.2.2.1 A-Wells

- PCE was detected in 9 of 12 wells sampled as follows: 4,500 $\mu\text{g}/\text{m}^3$ in SVMW-1A (located on the Property); 3,100 $\mu\text{g}/\text{m}^3$ in SVMW-11A (located at the south end of Rail Avenue, north of 20th Street); 251 $\mu\text{g}/\text{m}^3$ in SVMW-10A (located on the Property); 95 $\mu\text{g}/\text{m}^3$ in SVMW-9A (located on the Property); 51 $\mu\text{g}/\text{m}^3$ in SVMW-12A (located on the Property); 26 $\mu\text{g}/\text{m}^3$ in SVMW-8A; 20 $\mu\text{g}/\text{m}^3$ in SVMW-3A; 18 $\mu\text{g}/\text{m}^3$ in SVMW-6A; and 14 $\mu\text{g}/\text{m}^3$ in SVMW-4A. All detected concentrations exceeded the EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$. Laboratory detection limits in the 3 wells with non-detect concentrations of PCE (17 $\mu\text{g}/\text{m}^3$ in SVMW-2A, 6.8 $\mu\text{g}/\text{m}^3$ in SVMW-5A, and 17 $\mu\text{g}/\text{m}^3$ in SVMW-7A) were above the EPA RSLs and annual AAAQG limits.
- TCE was detected in 1 of 12 wells sampled: 29 $\mu\text{g}/\text{m}^3$ in SVMW-1A (located on the Property). This concentration exceeded the EPA RSLs and the AAAQG limits. Laboratory detection limits of 5.4 $\mu\text{g}/\text{m}^3$ to 13 $\mu\text{g}/\text{m}^3$ in the remaining 11 wells with non-detect concentrations of TCE were above the EPA RSLs and the annual AAAQG limits.
- 1,1-DCE was detected in 1 of 12 wells sampled: 19 $\mu\text{g}/\text{m}^3$ in SVMW-1A (located on the Property). This concentration was below the EPA RSLs and AAAQGs limits. Laboratory detection limits for the remaining 11 wells with non-detect concentrations of 1,1-DCE were below the EPA RSLs and annual AAAQG limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for all samples (7.78 $\mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of 13 $\mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of 3.1 $\mu\text{g}/\text{m}^3$.

4.2.2.2 B-Wells

- PCE was detected in the following 10 of 12 wells sampled: 5,200 $\mu\text{g}/\text{m}^3$ in SVMW-1B (located on the Property); 4,500 $\mu\text{g}/\text{m}^3$ in SVMW-11B (located at the south end of Rail Avenue, north of 20th Street); 515 $\mu\text{g}/\text{m}^3$ in SVMW-10B (located on the Property); 163 $\mu\text{g}/\text{m}^3$ in SVMW-9B (located on the Property); 81 $\mu\text{g}/\text{m}^3$ in SVMW-12B (located on Rail Avenue, north of 19th Street); 55 $\mu\text{g}/\text{m}^3$ in SVMW-6B; 35 $\mu\text{g}/\text{m}^3$ in SVMW-8B; 25 $\mu\text{g}/\text{m}^3$ in SVMW-2B; 24 $\mu\text{g}/\text{m}^3$ in SVMW-3B; and 14 $\mu\text{g}/\text{m}^3$ in SVMW-4B. All detected concentrations

exceeded the EPA Residential and Industrial RSLs of $0.41 \mu\text{g}/\text{m}^3$ and $2.1 \mu\text{g}/\text{m}^3$, respectively, and annual AAAQG of $1.7 \mu\text{g}/\text{m}^3$. Laboratory detection limits in the 2 wells with non-detect concentrations of PCE ($6.8 \mu\text{g}/\text{m}^3$ in SVMW-5B and $17 \mu\text{g}/\text{m}^3$ in SVMW-7B), were above the EPA RSLs and the annual AAAQG limits.

- TCE was detected in 3 of the 12 wells sampled: $27 \mu\text{g}/\text{m}^3$ in SVMW-1B (located on the Property); $59 \mu\text{g}/\text{m}^3$ in SVMW-11B; and $7 \mu\text{g}/\text{m}^3$ in SVMW-10B. These concentrations exceeded the EPA Residential and Industrial RSLs of $1.2 \mu\text{g}/\text{m}^3$ and $6.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $0.58 \mu\text{g}/\text{m}^3$. The laboratory detection limit of $5.4 \mu\text{g}/\text{m}^3$ in 5 wells with non-detect TCE concentrations (SVMW-3B, SVMW-4B, SVMW-5B, SVMW-8B, and SVMW-9B), was above the EPA Residential RSL and the annual AAAQG limits, but below the EPA Industrial RSL. The laboratory detection limit of $13 \mu\text{g}/\text{m}^3$ in 4 wells with non-detect TCE concentrations (SVMW-2B, SVMW-6B, SVMW-7B, and SVMW-12B) was above both EPA RSLs and annual AAAQG limits.
- 1,1-DCE was detected in 1 of 12 wells sampled: $14 \mu\text{g}/\text{m}^3$ in SVMW-1B (located on the Property). This concentration was below the established EPA RSLs and AAAQGs limits. Laboratory detection limits for the remaining 11 wells with non-detect concentrations of 1,1-DCE were below the established EPA RSLs and AAAQG limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for all samples ($7.78 \mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of $13 \mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of $3.1 \mu\text{g}/\text{m}^3$.

4.2.2.3 C-Wells

- PCE was detected in both existing C-wells: $3,500 \mu\text{g}/\text{m}^3$ in SVMW-1C (located on the Property) and $35 \mu\text{g}/\text{m}^3$ in SVMW-8C. These concentrations exceeded the EPA Residential and Industrial RSLs of $0.41 \mu\text{g}/\text{m}^3$ and $2.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $1.7 \mu\text{g}/\text{m}^3$.
- TCE was detected in 1 of the 2 existing C-wells: $22 \mu\text{g}/\text{m}^3$ in SVMW-1C (located on the Property). This concentration exceeded the EPA Residential and Industrial RSLs of $1.2 \mu\text{g}/\text{m}^3$ and $6.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $0.58 \mu\text{g}/\text{m}^3$. The laboratory detection limit of $5.4 \mu\text{g}/\text{m}^3$ in SVMW-8C was above the EPA Residential RSL and annual AAAQG limits, but below the EPA Industrial RSL of $6.1 \mu\text{g}/\text{m}^3$.
- 1,1-DCE was detected in 1 of the 2 wells sampled: $11 \mu\text{g}/\text{m}^3$ in SVMW-1C (located on the Property). This concentration was below the established EPA RSLs and AAAQGs limits. The laboratory detection limit of in SVMW-8C of $4.0 \mu\text{g}/\text{m}^3$ was below the established EPA RSLs and AAAQG limits.

- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for all samples ($7.78 \mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of $13 \mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of $3.1 \mu\text{g}/\text{m}^3$.

4.2.2.4 D-Wells

- PCE was detected in both existing D-wells: $224 \mu\text{g}/\text{m}^3$ in SVMW-1D (located on the Property) and $16 \mu\text{g}/\text{m}^3$ in SVMW-8D. These concentrations exceeded the EPA Residential and Industrial RSLs of $0.41 \mu\text{g}/\text{m}^3$ and $2.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $1.7 \mu\text{g}/\text{m}^3$.
- TCE was not detected in the two existing D-well in concentrations at or above its LRL of $5.4 \mu\text{g}/\text{m}^3$. This reporting limit was above the EPA Residential RSL and annual AAAQG limits, but below the EPA Industrial RSL of $6.1 \mu\text{g}/\text{m}^3$.
- 1,1-DCE was not detected at or above its LRL of $4 \mu\text{g}/\text{m}^3$. This reporting limit was below the established EPA RSLs and AAAQG limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in these samples. The calculated hydrogen cyanide LRL for all samples ($7.78 \mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of $13 \mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of $3.1 \mu\text{g}/\text{m}^3$.

4.2.2.5 E-Well

- PCE was detected in the only existing E-well: $68 \mu\text{g}/\text{m}^3$ in SVMW-8E. This concentration exceeded the EPA Residential and Industrial RSLs of $0.41 \mu\text{g}/\text{m}^3$ and $2.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $1.7 \mu\text{g}/\text{m}^3$.
- TCE was detected in the only existing E-well: $13 \mu\text{g}/\text{m}^3$ in SVMW-8E. This concentration exceeded the EPA Residential and Industrial RSLs of $1.2 \mu\text{g}/\text{m}^3$ and $6.1 \mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of $0.58 \mu\text{g}/\text{m}^3$.
- 1,1-DCE was not detected at or above the LRL of $4.0 \mu\text{g}/\text{m}^3$. The LRL for 1,1-DCE was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in the sample. The calculated hydrogen cyanide LRL for all samples ($7.78 \mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of $13 \mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of $3.1 \mu\text{g}/\text{m}^3$.

4.2.2.6 F-Well

- PCE was detected in the only existing F-well: 12 $\mu\text{g}/\text{m}^3$ in SVMW-8F. This concentration exceeded the EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$.
- TCE was not detected at or above its LRL of 5.4 $\mu\text{g}/\text{m}^3$. This reporting limit exceeded the EPA Residential RSL of 1.2 $\mu\text{g}/\text{m}^3$ and the annual AAAQG of 0.58 $\mu\text{g}/\text{m}^3$, but was below the EPA Industrial RSL of 6.1 $\mu\text{g}/\text{m}^3$.
- 1,1-DCE was not detected at or above the LRL of 4.0 $\mu\text{g}/\text{m}^3$. The LRL for 1,1-DCE was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in the sample. The calculated hydrogen cyanide LRL for all samples (7.78 $\mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of 13 $\mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of 3.1 $\mu\text{g}/\text{m}^3$.

4.2.2.7 G-Well

- PCE was detected in the only existing G-well: 16 $\mu\text{g}/\text{m}^3$ in SVMW-8G. This concentration exceeded the EPA Residential and Industrial RSLs of 0.41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively, and the annual AAAQG of 1.7 $\mu\text{g}/\text{m}^3$.
- TCE and 1,1-DCE were not detected at or above their LRLs. The LRL for TCE of 5.4 $\mu\text{g}/\text{m}^3$ exceeded the EPA Residential RSL of 1.2 $\mu\text{g}/\text{m}^3$ and the annual AAAQG of 0.58 $\mu\text{g}/\text{m}^3$, but was below the EPA Industrial RSL of 6.1 $\mu\text{g}/\text{m}^3$. The LRL for 1,1-DCE of 4.0 $\mu\text{g}/\text{m}^3$ was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in the sample. The calculated hydrogen cyanide LRL for all samples (7.78 $\mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of 13 $\mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of 3.1 $\mu\text{g}/\text{m}^3$.

4.2.2.8 H-Well

- PCE, TCE, and 1,1-DCE were not detected in the only existing G-well at or above their LRLs. The LRLs for PCE (6.8 $\mu\text{g}/\text{m}^3$) and TCE (5.4 $\mu\text{g}/\text{m}^3$) exceeded their established EPA RSLs and AAAQG limits. The LRL for 1,1-DCE of 4.0 $\mu\text{g}/\text{m}^3$ was below the regulatory limits.
- Cyanide ion and cyanide ion-particulate were not detected at or above the laboratory detection limits. Consequently, hydrogen cyanide was not calculated to be present in the sample. The calculated hydrogen cyanide LRL for all

samples ($7.78 \mu\text{g}/\text{m}^3$) was below the EPA Industrial RSL of $13 \mu\text{g}/\text{m}^3$, but exceeded the EPA Residential RSL limit of $3.1 \mu\text{g}/\text{m}^3$.

4.3 INSTALLATION OF GROUNDWATER MONITORING WELLS – MARCH 2010

4.3.1 Installation

During the period of March 2 through March 11, 2010, GeoTrans installed two groundwater monitoring wells, MW-25A and MW-25B. Both drilling locations were first air-knifed to depths of 5 feet bgs by Yellow Jacket Drilling (Yellow Jacket). Subsequently, the MW-25A boring was drilled to a total depth of 96 feet bgs using a CME 85 hollow-stem auger rig, and the MW-25B boring to a total depth of 178 feet bgs using a mud rotary drill rig. Groundwater monitoring wells MW-25A and MW-25B were installed on the west side of Maple Avenue, just north of 17th Street, thus northwest of the Harvest Preparatory School. MW-25A was installed to a total depth of approximately 95 feet bgs, and screened from 65 feet to 95 feet bgs. MW-25B was installed to a total depth of 170 feet bgs, and screened from 140 feet to 170 feet bgs.

Because the goal of the installation of MW-25B was to place this well in the B-Zone, lithological logging was conducted every 5 feet from 80 feet 140 feet bgs. Clay B was encountered at 130 feet bgs and was approximately 5 feet thick. Once the presence of Clay B was established, drilling continued without lithological logging, unless a change in lithology was encountered. As such, a 1-foot thick gravely clay was encountered at approximately 163 feet bgs. No other lithological samples were collected. A lithological log is provided on Figure D-1 in Appendix D.

The groundwater monitoring wells were installed using 4-inch, Schedule-40 PVC casing and 4-inch, Schedule 40, 0.02-inch machine-slotted PVC screen. A sandpack was placed from the bottom of the borehole to approximately 3 feet above the screen interval, and an approximate 5-foot thick bentonite chip seal was placed above the top of the sandpack in the well. The annular space was sealed with bentonite cement grout from the top of the bentonite chip seal to 1 feet bgs. A 4-inch locking cap was placed at the top of the PVC casing, and a flush-grade well vault was installed to protect the wellhead. Well construction details are provided in Table 4 and on Figures D-2 (MW-25A) and D-3 (MW-5B) in Appendix D.

4.3.2 Development

Following installation, the wells were developed on March 12, 2010 by surging, bailing, and pumping with a Smeal pump rig. The wells were purged until purge water hydrochemistry parameters (pH, temperature, conductivity, turbidity, total dissolved solids, and redox potential) stabilized for successive measurements. Well development details are presented in Appendix E.

4.3.3 Surveying

Following installation of MW-25A and MW-25B, the locations and elevations of the two groundwater monitoring wells were surveyed. Surveyed elevations are presented in Table 3, and the surveyor's reports are presented in Appendix F.

4.3.4 Investigation-Derived Waste Management

Soil cuttings were transported from each drilling location to the Property, where they were combined with the drill cuttings generated during installation of SVMWs (see Sections 3.3 and 4.4). All soil cuttings were stored in two lined ADOT-approved roll-off bins for subsequent profiling, transport, and disposal. Samples of the stored drill cuttings were collected for waste profiling, as required by the disposal facility. One composite sample was collected from each bin and analyzed for disposal purposes for VOCs (EPA Method 8260B), semi-volatile organic compounds (SVOCs) (EPA Method 8270), total Resource Conservation Recovery Act (RCRA) metals (EPA Method 6010 and 7471), RCRA Toxicity Characteristic Leaching Procedure (TCLP) (EPA Methods 6010 and 7470), total petroleum hydrocarbon (TPH) (Method 8015AZR1), ignitability (SW1010), and pH (SM4500-H). The corresponding laboratory reports are provided in Appendix C. Soil cuttings were disposed of at the Copper Mountain Landfill; the corresponding disposal documents are provided in Appendix C.

The development water was transported from the well sites to the Property via a water wagon, containerized in a polyethylene tank, and disposed of at the Copper Mountain Landfill. Disposal documentation is provided in Appendix C.

4.4 GROUNDWATER MONITORING AND SAMPLING – APRIL 2010

4.4.1 Groundwater Elevation Measurements and Flow Conditions

On April 26, 2010, depth-to-water measurements were collected from the following groundwater wells: DMW-11; MW-8A,B,C; MW-9A; MW-12A; MW-13A; MW-15A; MW-16A; MW-17A,C; MW-18A; MW-21A,B,C; MW-23B; MW-24B; MW-25A, B; MW-101A; MW-102B1; and MW-103C. Details of individual monitoring well construction and measuring point elevations at the Site are presented in Table 4. Depth to water and groundwater elevations data compiled since October 1992 are shown in Table 3.

In April 2010, the groundwater gradients were calculated to be as follows:

- A-Zone¹ wells: approximately 0.001 feet per foot (ft/ft) to the west across the Property and to the west-northwest across the Site (Figure 5a);
- B-Zone¹ wells: approximately 0.001 ft/ft to the west-northwest across the Site (Figure 5b); and
- C-Zone¹ wells: approximately 0.001 ft/ft to the west across the Property, and approximately 0.002 ft/ft to the west across the Site (Figure 5c).

¹ Wells ending in "A" are screened within the shallow zone (A-Zone) of the aquifer (screened approximately 50 to 105 feet bgs). Wells ending in "B" are screened within the middle zone (B-Zone) of the aquifer (screened approximately 105 to 170 feet bgs, or between Clay A and Clay B layers present beneath the Site). Wells ending in "C" are screened within the deep zone (C-Zone) of the aquifer (screened approximately 170 to 318 feet bgs).

4.4.2 Groundwater Sampling

During the April 2010 groundwater sampling event, GeoTrans sampled the following groundwater monitoring and production wells at the Site: DMW-11; MW-8A,B,C; MW-9A; MW-12A; MW-13A; MW-15A; MW-16A; MW-17A,C; MW-18A; MW-21A,B,C; MW-23B; MW-24B; MW-25A,B; MW-101A; MW-102B1; MW-103C; St. Francis; and Alice Byrne. The collected samples were analyzed for VOCs and cyanides. All LRLs were below their respective AWQSs. The laboratory reports are included in Appendix G, and copies of the completed groundwater sampling field data sheets are included in Appendix H. A summary of selected VOCs and cyanides detected in groundwater at the Site since 2001 is presented in Table 5.

A summary of COCs detected in the shallow zone (A-Zone), middle zone (B-Zone), and deep zone (C-Zone) of the aquifer in April 2010 is presented below and on Figure 6. Graphs showing groundwater elevations and concentrations of COC VOCs as a function of time for groundwater monitoring, extraction, and piezometer wells at the Site are presented in Appendix I.

4.4.2.1 A-Zone Wells

Analytical results of the groundwater samples collected from the A-Zone wells during the April 2010 sampling event are summarized below, presented in Table 5, and illustrated on Figure 6:

- PCE was detected above its LRL in groundwater samples collected from 3 A-Zone monitoring wells: 97 µg/L in well MW-8A; 13 milligrams per liter (mg/L) at well MW-18A; and 2.1 µg/L in well MW-12A. The PCE concentrations detected in well MW-8A and MW-13A were above the AWQS for PCE of 5 µg/L;
- TCE was detected above its LRL in the groundwater samples collected from the following two A-Zone monitoring wells: 36 µg/L in well MW-8A and 14 µg/L in well MW-18A. Both concentrations exceed the AWQS for TCE of 5 µg/L;
- 1,1-DCE was detected above its LRL in the groundwater sample collected from the following 2 A-Zone wells: 17 µg/L in MW-8A and 4.4 µg/L in MW-18A. The concentration in MW-8A is above the AWQS for 1,1-DCE of 7 µg/L;
- No other COC VOCs were detected at or above their LRLs in the groundwater samples collected from the A-Zone wells during the April 2010 sampling event; and
- Total cyanide was detected only in the groundwater sample collected from A-Zone well MW-8A, at a concentration of 0.19 mg/L. The sample was then analyzed for amenable (free) cyanide, which was also detected at a concentration of 0.19 mg/L. Both detected cyanide concentrations were below

the AWQS for amenable (free) cyanide of 0.2 mg/L. There is no AWQS currently established for total cyanide.

4.4.2.2 B-Zone Wells

Analytical results of the groundwater samples collected from the B-Zone wells during the April 2010 sampling event are summarized below, in Table 5, and illustrated on Figure 6:

- PCE was detected above its LRL in groundwater samples collected from 2 B-Zone wells: 78 µg/L in MW-8B and 9.2 µg/L in MW-102B1. Both concentrations were above the AWQS for PCE of 5 µg/L;
- TCE was detected above its LRL in groundwater samples collected from 3 B-Zone wells: 26 µg/L in MW-8B; 16 µg/L MW-21B; and 0.57 µg/L in MW-102B1. Only the TCE concentrations detected in wells MW-8B and MW-21B were above the AWQS for TCE of 5 µg/L;
- 1,1-DCE was detected above its LRL in of the groundwater samples collected from B-Zone wells: 11 µg/L in MW-8B, exceeding the AWQS of 7 µg/L;
- No other COC VOCs were detected above their LRLs; and
- Total cyanide was detected in groundwater samples collected from wells MW-8B and MW-24B, at concentrations of 0.032 mg/L and 0.64 mg/L, respectively. Samples with detected concentrations of total cyanide were also analyzed for amenable (free) cyanide. Free cyanide was detected in both samples, at concentrations of 0.032 mg/L in MW-8B and 0.64 mg/L in MW-24B. The detected cyanide concentrations in MW-24B exceeded the AWQS for amenable (free) cyanide of 0.2 mg/L. There is no AWQS currently established for total cyanide.

4.4.2.3 C-Zone Wells

Analytical results of the groundwater samples collected from the C-Zone wells and water production wells located at Alice Byrne and St. Francis schools during the April 2010 sampling event are presented below, in Table 5, and illustrated on Figure 6:

- PCE was detected above its LRL in groundwater samples collected from the following 2 C-Zone wells: 11 µg/L in MW-8C and 3.1 µg/L in MW-103C. The concentration of PCE detected in well MW-8C exceeded the AWQS of 5 µg/L;
- TCE was detected above its LRL in groundwater samples collected from the following 2 C-Zone wells: 3.7 µg/L in MW-8C and 1.0 µg/L in MW-103C. Neither of these concentrations exceeded the AWQS of 5 µg/L;
- 1,1-DCE was detected above its LRL in one of the groundwater samples collected from C-Zone wells, 1.2 µg/L in MW-8C, below the AWQS of 7 µg/L;

- VOCs were not detected at or above their LRLs in the groundwater samples collected from the Alice Byrne or St. Francis production wells during this groundwater sampling event; and
- Total cyanide was not detected at or above its LRL in the C-Zone monitoring wells or the Alice Byrne and St. Francis production wells.² Thus, these samples were not analyzed for amenable (free) cyanide.

4.4.3 Quality Assurance/Quality Control (QA/QC)

Due to budgetary constraints, field quality assurance during the January 2009 and April 2010 groundwater sampling event included only daily field instrument calibration and the collection and analysis of trip blanks. No analytes were detected in the trip blanks in concentrations at or above their LRLs.

² Historically, with the exception of 0.011 mg/L of cyanide detected at St. Francis during the July 2007 groundwater sampling event, cyanides have not been detected above the laboratory reporting limit in the Alice Byrne or St. Francis production wells.

5.0 REFERENCES

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GeoTrans, 2004. *Work Plan and Field Sampling Plan for Remedial Investigation Activities at the 20th and Factor WQARF Site, Yuma, Arizona.* November 2004.

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TABLES

TABLE 1
Concentrations of Compounds Detected During Active Soil Vapor Survey
September 2008
20th and Factor WQARF Site
Yuma, Arizona
in micrograms per cubic meter (µg/m3)

Volatile Organic Compounds	AAAQG (1-hour)	AAAQG (24-hour)	AAAQG (Annual)	EPA RES RSL	EPA IND RSL	SVS-1	SVS-2	SVS-3	SVS-4	SVS-5	SVS-6	SVS-7	SVS-8	SVS-9	SVS-10	SVS-11	SVS-12	SVS-13	SVS-14	SVS-15	SVS-16	SVS-17	SVS-18	SVS-19	SVS-20	SVS-21	SVS-22	SVS-23	SVS-24	SVS-25	SVS-26	SVS-27	SVS-28	SVS-29	SVS-30	
PCE	1,300	640	1.7	0.41	2.08	<8.8	<8.2	<8.8	<8.8	<7.9	<8.6	10	43	<8.6	<8.1	<8.2	<8.4	<7.9	33	2,400	4,400	1,900	97	<8.4	10	<8.2	<8.4	17	30	230	1,700	4,800	1,400	<8.1	<7.9	
TCE	810	210	0.58	1.2	6.13	<6.9	<6.5	<6.9	<6.9	<6.3	<6.8	<6.9	11	<6.8	<6.4	<6.5	<6.6	<6.3	<6.6	16	<17	17	<6.4	<6.6	<6.5	<6.5	<6.6	40	7.4	41	86	58	11	<6.4	<6.3	
1,1-DCE	130	63	NL	210	876	<5.1	<4.8	<5.1	<5.1	<4.6	<5.0	<5.1	<4.9	<5.0	<4.7	<4.8	<4.9	<4.6	<4.9	<4.8	<12	<5.1	<4.7	<4.9	<4.8	<4.8	<4.9	<5.0	<4.9	<4.8	<4.7	<9.1	<4.6	<4.7	<4.6	
cis-1,2-DCE	NL	NL	NL	NL	NL	<5.1	<4.8	<5.1	<5.1	<4.6	<5.0	<5.1	<4.9	<5.0	<4.7	<4.8	<4.9	<4.6	<4.9	<4.8	<12	<5.1	<4.7	<4.9	<4.8	<4.8	<4.9	<5.0	<4.9	<4.8	<4.7	<9.1	<4.6	<4.7	<4.6	
trans-1,2-DCE	NL	NL	NL	63	263	<5.1	<4.8	<5.1	<5.1	<4.6	<5.0	<5.1	<4.9	<5.0	<4.7	<4.8	<4.9	<4.6	<4.9	<4.8	<12	<5.1	<4.7	<4.9	<4.8	<4.8	<4.9	<5.0	<4.9	<4.8	<4.7	<9.1	<4.6	<4.7	<4.6	
Benzene	1,700	44	0.12	0.31	1.57	<4.1	5.7	8.3	4.3	17	7.6	10	9.7	23	200	37	<3.9	24	190	3.8	<10	4.1	5.1	6.9	8.5	4.9	4.5	<4.0	6.5	4.0	5.6	<7.3	6.3	<3.8	24	
Toulene	4,400	3,000	NL	5,200	21,900	<4.9	8.3	13	<4.9	53	11	12	54	40	310	54	6.6	35	320	<4.6	<12	6.7	6.6	15	19	9.3	5.4	8.0	14	5.4	7.8	<8.6	12	<4.5	39	
Ethylbenzene	4,500	3,500	NL	0.97	4.91	<5.6	<5.2	<5.6	<5.6	9.5	5.8	<5.6	11	17	100	20	11	14	99	<5.2	<14	<5.6	<5.2	<5.4	9.1	21	7.5	<5.5	7.8	12	<5.2	<9.9	5.9	<5.2	13	
m,p-Xylene	5,400	3,500	NL	730	3,070	<5.6	<5.2	5.9	<5.6	28	10	6.3	43	21	78	17	38	29	110	5.7	<14	<5.6	<5.2	5.8	7.3	73	17	10	11	41	7.2	<9.9	10	<5.2	14	
o-Xylene	5,400	3,500	NL	730	3,070	<5.6	<5.2	<5.6	<5.6	19	<5.5	<5.6	22	10	51	12	6.0	8.0	65	<5.2	<14	<5.6	<5.2	<5.4	<5.2	8.1	<5.4	<5.5	<5.4	5.6	<5.2	<9.9	<5.0	<5.2	<5.0	
Ethanol	57,000	15,000	NL	NL	NL	22	12	24	<9.7	56	47	38	110	540	590	150	180	48	300	16	<24	15	16	21	<9.1	13	<9.3	33	26	18	22	<17	<8.8	<9.0	45	
Chloromethane	770	200	0.56	94	394	<11	<10	<11	<11	<9.6	<10	<11	<10	<10	9.6 J	<10	<10	<9.6	<10	<10	<26	<11	<9.8	<10	<10	<10	<10	<10	<9.8	<19	<9.6	<9.8	<9.8	<9.6		
1,3-Butadiene	5.0	1.3	NL	0.081	0.41	<2.8	<2.7	4.9	<2.8	12	4.7	6.2	3.7	<2.8	12	<2.7	<2.7	3.7	17	5.9	<6.9	3.9	<2.6	6.8	<2.7	5.2	3.2	<2.8	3.8	<2.7	6.0	<5.1	7.9	<2.6	<2.6	
Chloroethane	NL	NL	NL	NL	NL	<3.4	<3.2	<3.4	<3.4	<3.1	<3.3	<3.4	<3.2	4.5	4.7	<3.2	<3.2	<3.1	<3.2	<3.2	<8.2	4.7	<3.1	<3.2	<3.2	4.2	<3.2	<3.3	<3.2	<3.2	<3.1	<6.0	<3.1	<3.1	<3.1	
Freon 11	NL	NL	NL	730	3,070	<7.2	<6.8	<7.2	<7.2	<6.5	<7.1	<7.2	<6.9	<7.1	<6.7	<6.8	<6.9	<6.5	<6.9	30	<18	<7.2	<6.7	<6.9	<6.8	<6.8	<6.9	<7.1	<6.9	<6.8	<6.7	17	30	<6.7	<6.5	
Acetone	20,000	14,000	NL	32,000	135,000	54	50	190	180	440	190	310	530	1,700 E	2,100 E	750	130	220	1,500 E	150	83	72	130	150	220	68	55	390	120	140	150	49	59	40	200	
2-Propanol	NL	NL	NL	NL	NL	<13	<12	15	<13	67	16	21	25	160	110	40	36	18	110	<12	<31	<13	<12	<12	<12	<12	<12	<12	14	12	16	14	<22	16	<12	130
CD	90	24	NL	730	3,070	4.6	28	18	62	13	14	6.2	25	29	170	33	<3.8	5.6	31	12	13	23	12	18	28	9.5	6.7	19	11	13	12	<7.1	5.4	7.3	25	
MC	NL	NL	NL	5.2	26.1	<4.5	<4.2	<4.5	<4.5	68	<4.4	<4.5	<4.3	18	<4.1	<4.2	<4.3	<4.0	<4.3	5.1	<11	<4.5	<4.1	<4.3	<4.2	<4.2	<4.3	<4.4	<4.3	<4.2	<4.1	<8.0	<4.0	<4.1	25	
Hexane	5,400	1,400	NL	730	3,070	<4.5	6.5	12	5.0	13	9.0	8.3	11.0	35	67	11	<4.4	16	180	<4.3	<11	<4.5	8.0	8.0	16	<4.3	<4.4	10	16	<4.3	4.2	<8.1	10	<4.2	13	
MEK	600	160	NL	5,200	21,900	25	18	39	34	66	37	53	120	370	430	180	64	87	470	34	18	14	22	28	33	17	12	25	18	17	16	14	19	9.5	40	
Chloroform	60	16	0.043	0.11	0.533	<6.3	<5.9	<6.3	<6.3	25	<6.2	7.5	<6.0	8.2	<5.8	<5.9	<6.0	<5.7	<6.0	100	<15	280	6.3	<6.0	9.6	220	59	<6.2	11	25	29	<11	150	<5.8	19	
Cyclohexane	NL	NL	NL	6,300	26,300	<4.4	<4.2	<4.4	<4.4	<4.0	<4.4	<4.4	6.6	<4.4	16	4.2	<4.2	<4.0	18	<4.2	<11	<4.4	<4.1	4.4	6.4	<4.2	<4.2	<4.4	<4.2	<4.1	<7.9	<4.0	<4.1	<4.0		
2,2,4-TMP	NL	NL	NL	NL	NL	<6.0	<5.6	<6.0	<6.0	<5.4	<5.9	<6.0	<5.8	<5.9	<5.6	<5.6	<5.8	<5.4	9.2	<5.6	<14	<6.0	<5.6	<5.8	<5.6	<5.6	<5.8	<5.9	<5.8	<5.6	<5.6	<11	<5.4	<5.6	<5.4	
Heptane	17,000	16,000	NL	NL	NL	<5.3	7.0	9.7	<5.3	11	6.7	8.4	19	32	100	17	<5.1	17	140	<5.0	<13	<5.3	<4.9	7.1	11	<5.0	<5.1	<5.2	7.9	<5.0	<4.9	<9.4	7.7	<4.9	9.3	
BDCM	78	21	0.056	0.066	0.331	<8.6	<8.1	<8.6	<8.6	<7.8	<8.5	<8.6	<8.3	<8.5	<8.0	<8.1	<8.3	<7.8	<8.3	16	<21	95	<8.0	<8.3	<8.1	70	<8.3	<8.5	<8.3	<8.1	<8.0	<15	12	<8.0	10	
4-Methyl-2-Pentanone	NL	NL	NL	3,100	13,100	<5.3	<5.0	<5.3	<5.3	<4.8	<5.2	<5.3	<5.0	11	11	<5.0	5.3	<4.8	21	<5.0	<13	<5.3	<4.9	<5.0	<5.0	<5.0	<5.0	<5.2	<5.0	<5.0	<4.9	<9.4	<4.8	<4.9	<4.8	
2-Hexanone	NL	NL	NL	31	131	<21	<20	<21	<21	<19	<21	<21	<20	22	27	<20	<20	<19	60	<20	<51	<21	<19	<20	<20	<20	<20	<21	<20	<20	<19	<38	<19	<19	<19	
Styrene	NL	NL	NL	1,000	4,380	<5.5	<5.2	<5.5	<5.5	<5.0	<5.4	<5.5	<5.3	<5.4	33	6.8	<5.3	<5.0	8.2	<5.2	<13	<5.5	<5.1	<5.3	<5.2	<5.3	<5.4	<5.3	<5.2	<5.1	<9.8	<5.0	<5.1	<5.0		
Cumene	NL	NL	NL	420	1,750	<6.3	<5.9	<6.3	<6.3	<5.7	<6.2	<6.3	<6.1	<6.2	10	<5.9	<6.1	<5.7	14	<5.9	<15	<6.3	<5.8	<6.1	<5.9	<5.9	<6.1	<6.2	<6.1	<5.9	<5.8	<11	<5.7	<5.8	<5.7	
Propylbenzene	NL	NL	NL	1,000	4,380	<6.3	<5.9	<6.3	<6.3	<5.7	<6.2	<6.3	<6.1	<6.2	21	<5.9	<6.1	<5.7	32	<5.9	<15	<6.3	<5.8	<6.1	<5.9	<5.9	<6.1	<6.2	<6.1	<5.9	<5.8	<11	<5.7	<5.8	<5.7	
4-Ethyltoluene	NL	NL	NL	NL	NL	<6.3	<5.9	<6.3	<6.3	<5.7	<6.2	<6.3	18	11	29	8.3	<6.1	<5.7	35	<5.9	<15	<6.3	<5.8	<6.1	<5.9	<5.9	<6.1	<6.2	<6.1	<5.9	<5.8	<11	<5.7	<5.8	<5.7	
1,3,5-TMB	1,400	990	NL	NL	NL	<6.3	<5.9	<6.3	<6.3	<5.7	<6.2	<6.3	14	<6.2	<5.8	<5.9	<6.1	<5.7	<6.1	<5.9	<15	<6.3	<5.8													

Notes:

ADHS = Arizona Department of Health Services

AAAQG = Arizona Ambient Air Quality Guidelines

EPA RES RSL = EPA Residential Regional Screening Level (formerly Preliminary Remediation Goal [PRG])

EPA IND RSL = EPA Industrial Regional Screening Level (formerly Preliminary Remediation Goal [PRG])

PCE = Tetrachloroethene

TCE = Trichloroethene

1,1-DCE = 1,1 Dichloroethene

BDCM = Bromodichloromethane

CD = Carbon Disulfide

MC = Methylene Chloride

MEK = 2-Butanone (Methyl Ethyl Ketone)

1,2,4-TMB = 1,2,4-Trimethylbenzene

1,3,5-TMB = 1,3,5-Trimethylbenzene

2,2,4-TMP = 2,2,4-Trimethylpentane

22	Concentrations detected at or above the laboratory reporting limit
10	Concentrations detected at or above the EPA Residential RSL

E = Exceeds instrument calibration range

J = Estimated value

NL = Not listed in the EPA's May 2010 RSL Table and/or the 1999 DRAFT ADHS AAAQG Guidelines

VOCs were sampled and analyzed in accordance with EPA Method TO-15.

TABLE 2
CONCENTRATIONS OF COMPOUNDS DETECTED IN SOIL VAPOR SAMPLES
DECEMBER 2003 THROUGH MARCH 2010
20th and Factor WQARF Site, Yuma, Arizona
in microgram per cubic meter [ug/m3]

Sample Location	Date	Sample Type	Sample Probe Screened Interval (in feet bgs)	Volatile Organic Compounds (VOCs)																											Hydrogen Cyanide				
				PCE	TCE	1,1-DCE	1,1,1-TCA	Benzene	Toulene	Ethylbenzene	m,p-Xylene	o-Xylene	Ethanol	Chloromethane	Chloroethane	Acetone	2-Propanol	CD	MC	Hexane	MEK	THF	Chloroform	Cyclohexane	2,2,4-TMP	Heptane	BDCM	4-Methyl-2-Pentansino	2-Hexanone	Styrene	Propylbenzene	4-Ethyltoluene	1,3,5-TMB	1,2,4-TMB	HCN
SVMW-1A	12/18/2003	Post Purge	19.5 to 20	160,000	<5,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	
	1/8/2004	Post Purge		20,000 D2	<250	<250	<250*	<250	<250	<250	<500	<250	NR	<250	<250	<2,500	<500	<250	<250	<250	<500	<1,000	<250	<250	<250	<250	<500	<500	<500	NR	<250	<250	<250	140	
	4/24/2008	Post Purge		28,000 D2	<550	<410	<550	<320	<380	<440	<880	<440	NR	<210	<270	<2,400	<1,000	<320	<350	<360	<600	<1,200	<500	<350	<470	<420	<680	<830	<830	<430	NR	<440	<500	<500	<10
	3/11/2010	No Purge		4,500	29	19	131	4.5	24	<4.3	14	9.1	NR	37	<2.6	57	<10	1,100 D2	<3.5	4.2	10	<12	54	<3.4	<4.7	<4.1	9.4	<8.2	<8.2	<4.3	NR	<8.2	<4.9	6.4	<7.78
SVMW-1B	12/18/2003	Post Purge	34.5 to 35	170,000	<10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	
	1/8/2004	Post Purge		36,000 D2	<250	250 D2	270 D2	<250	<250	<250	<500	<250	NR	<250	<250	<2,500	<500	<250	<250	<250	<500	<1,000	<250	<250	<250	<250	<500	<500	<500	NR	<250	<250	<250	110	
	4/24/2008	Post Purge		8,300 D2	<280	<210	<210	<160	<190	<220	<440	<220	NR	<50	<50	<1,200	<500	<160	<180	<180	<300	<600	<250	<170	<240	<210	<340	<420	<420	<220	NR	<220	<250	<250	<10
	3/11/2010	No Purge		5,200 D2	27	14	66	8.0	22	<4.3	<8.7	4.3	NR	352 D2	34	90	<10	5,900 D2	<3.5	<3.5	17	<12	59	<3.4	<4.7	12	10	<8.2	<8.2	<4.3	NR	<4.9	<4.9	6.4	<7.78
SVMW-1C	12/18/2003	Post Purge	49.5 to 50	200,000	<10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	
	1/8/2004	Post Purge		35,000 D2	<250	<250	280 D2	<250	<250	<250	<500	<250	NR	<250	<250	<2,500	<500	<250	<250	<250	<500	<1,000	<250	<250	<250	<250	<250	<500	<500	<500	NR	<250	<250	<250	110
	4/25/2008	Post Purge		13,000 D2	<280	<200	<280	<160	<190	<220	<440	<220	NR	<100	<130	<1,200	<500	<160	<180	<180	<300	<600	<250	<170	<240	<180	<340	<420	<420	<220	NR	<220	<250	<250	<10.4
	3/11/2010	No Purge		3,500 D2	22	11	87	6.1	26	4.8	19	11	NR	104 D2	11	81	<10	2,200 D2	<3.5	<3.5	12	<12	46	<3.4	<4.7	<4.1	3,500	<8.2	<8.2	<4.3	NR	<4.9	6.9	14	<7.78
SVMW-1D	12/18/2003	Post Purge	64.5 to 65	240,000	<10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	
	1/8/2004	Post Purge		32,000 D2	<250	<250	270 D2	<250	<250	<250	<500	<250	NR	<250	<250	<2,500	<500	<250	<250	<250	<500	<1,000	<250	<250	<250	<250	<250	<500	<500	<500	NR	<250	<250	<250	<100
	4/25/2008	Post Purge		7,600 D2	<280	<200	<280	<160	<190	<220	<440	<220	NR	<100	<130	<1,200	<500	<160	<180	<180	<300	<600	<250	<170	<240	<210	<340	<420	<420	<220	NR	<220	<250	<250	<9.46
	3/11/2010	No Purge		224	<5.4	<4.0	32	3.5	75	<4.3	<8.7	4.3	NR	7.0	<2.6	45	<10	159 D2	<3.5	<3.5	11	<12	<4.6	<3.4	<4.7	<4.1	<6.7	<8.2	<8.2	<4.3	NR	<4.9	<4.9	8.4	<7.78
SVMW-2A	9/12/2008	Post Purge	4.5 to 5	<7.5	<5.9	<4.4	<6.0	<3.5	<4.1	31	100	11	12	<9.1	<2.9	25	59	23	<3.8	<3.9	7.4	<3.2	7.8	<3.8	<5.1	<4.5	<7.4	<4.5	<18	<4.7	<5.4	<5.4	<48.1		
	10/7/2008	Pre Purge		5.1	18	<1.98	<2.73	3.1	60	19	56	19	NR	<1.03	<1.32	<11.9	5.3	<1.56	2	5.6	<2.95	<5.90	13	5.2	13	3.4	<3.35	<4.10	5.3	18	NR	12	11	33	<65.6
	10/21/2008	Pre Purge		8.8	<6.0	<4.4	<6.1	32	67	30	120	32	16	12	<3.0	130	36	26	8.4	<3.9	22	<3.3	8.8	<3.8	<5.2	<4.6	<7.5	<4.6	<18	<4.8	<5.5	22	6.5	25	<65.6
	10/21/2008	Post Purge		13	<6.4	<4.7	<6.5	29	81	42	170	48	16	<9.8	<3.1	78	84	<3.7	11	<4.2	13	<3.5	14	<4.1	<5.6	<4.9	<8.0	<4.9	<19	<5.1	6.5	29	8.8	31	<65.6
	11/11/2008	Pre Purge		<3.39	<2.69	<1.98	<2.73	7.7	16	18	65	14	NR	5.0	<1.32	26	10	17	4.9	2.6	5.6	<5.90	9.3	<1.72	<2.34	<2.05	<3.35	<4.10	<4.10	6.4	NR	4.9	3.8	15	<7.78
	3/8/2010	No Purge		<17	<13	<9.9	<14	8.6	57	<11	23	<11	NR	<10	<6.6	<60	<25	<7.8	<8.7	<8.8	<15	<30	17	<8.6	<12	<10	<17	<21	<21	<11	NR	<12	<12	<12	<7.78
SVMW-2B	9/12/2008	Post Purge	9.5 to 10	<7.8	<6.2	<4.5	<6.2	8.6	<4.3	<5.0	<5.0	<6.6	<9.4	<3.0	25	<11	17	<4.0	<4.0	4.9	<3.4	9.9	<3.9	<5.3	<4.7	<7.7	<4.7	<19	<4.9	<5.6	<5.6	<5.6	<5.6	121	
	10/7/2008	Pre Purge		<3.39	<2.69	<1.98	<2.73	<1.60	42	14	33	9.1	NR	<1.03	<1.32	74	9.3	8.1	1.7	2.8	8.3	<5.90	14	<1.72	<2.34	<2.05	<3.35	4.1	<4.10	17	NR	9.8	6.9	20	<65.6
	10/21/2008	Pre Purge		12	<6.2	<4.5	<6.2	40	82	38	140	41	17	170	<3.0	130	47	11	11	<4.0	17	<3.4	13	<3.9	<5.3	<4.7	<7.7	<4.7	<19	<4.9	5.8	24	7.0	26	<65.6
	10/21/2008	Post Purge		9.9	<6.2	<4.5	<6.2	32	72	34	130	38	10	23	<3.0	48	<11	<3.6	6.9	<4.0	13	7.2	19	<3.9	<5.3	<4.7	<7.7	<4.7	<19	<4.9	5.7	25	7.9	29	<65.6
	11/11/2008	Pre Purge		6.8	<2.69	<1.98	<2.73	12	35	21	78	17	NR	91	<1.32	59	6.4	14	3.8	4.9	9.7	<5.90	13	2.2	<2.34	3.7	<3.35	<4.10	<4.10	6.0	NR	5.9	4.1	17	<7.78
	3/8/2010	No Purge		25	<13	<9.9	<14	<8.0	34	<11	<22	<11	NR	23	<6.6	<60	<25	21	<8.7	<8.8	<15	<30	20	<8.6	<12	<10	<17	<21	<21	<11	NR	<12	<12	<12	<7.78
SVMW-3A	9/12/2008	Post Purge	4.5 to 5	21	<6.6	<4.9	<6.73	<3.9	<4.6	6.1	20	<5.4	<9.3	<10	<3.2	24	22	7.2	<4.3	<4.4	5.7	<3.6	8.8	<4.2	<5.8	<5.1	<8.3	<5.0	<20	<5.3	<6.1	<6.1	<6.1	<6.1	117
	10/7/2008	Pre Purge		54	70	<1.98	<2.73	3.8	130	43	170	74	NR	<1.03	<1.32	24	<4.92	3.1	<1.74	4.9	<2.95	<5.90	4.9	2.5	<2.34	4.5	<3.35	<4.10	<4.10	19	NR	37	27	76	<65.6
	10/21/2008	Pre Purge		34	<6.5	<4.8	<6.6	75	150	56	220	62	32	22	<3.2	130	46	24	16	4.7	26	8.4	7.1	<4.2	<5.6	<5.0	<8.1	<5.0	<2						

TABLE 2
CONCENTRATIONS OF COMPOUNDS DETECTED IN SOIL VAPOR SAMPLES
DECEMBER 2003 THROUGH MARCH 2010
20th and Factor WQARF Site, Yuma, Arizona
in microgram per cubic meter [ug/m3]

Sample Location	Date	Sample Type	Sample Probe Screened Interval (in feet bgs)	Volatile Organic Compounds (VOCs)																												Hydrogen Cyanide					
				PCE	TCE	1,1-DCE	1,1,1-TCA	Benzene	Toulene	Ethylbenzene	m,p-Xylene	o-Xylene	Ethanol	Chloromethane	Chloroethane	Acetone	2-Propanol	CD	MC	Hexane	MEK	THF	Chloroform	Cyclohexane	2,2,4-TMP	Heptane	BDCM	4-Methyl-2-Pentanone	2-Hexanone	Styrene	Propylbenzene	4-Ethyltoluene	1,3,5-TMB	1,2,4-TMB	HCN		
SVMW-5A	3/9/2009	No Purge	4.5 to 5	<17	<13.4	<10.1	<13.6	<7.99	31	24	160	87	NR	<5.16	<6.60	<59.4	37	11	30	11	38	50	16	<8.61	<11.7	11	<16.8	<20.5	<20.5	<10.6	NR	98	180	320	<7.78		
	3/9/2010	No Purge		<6.8	<5.4	<4.0	<5.5	<3.1	17	<4.3	16	8.2	NR	<4.1	<2.6	<24	<10	3.7	<3.5	<3.5	<5.9	<12	33	<3.4	<4.7	<4.1	<6.7	<8.2	<8.2	<4.3	NR	<4.9	4.9	9.8	<7.78		
SVMW-5B	3/9/2009	No Purge	9.5 to 10	6.3	3.6	<1.98	<2.73	4.0	87	31	110	33	NR	7.4	<1.32	57	<4.92	30	3.5	<1.76	68	110	36	4.5	3.8	<2.05	<3.35	12	5.3	10	NR	43	79	190	<7.78		
	3/9/2010	No Purge		<6.8	<5.4	<4.0	<5.5	<3.1	15	<4.3	<8.7	<4.3	NR	4.1	<2.6	29	<10	13	<3.5	<3.5	<5.9	<12	33	<3.4	<4.7	<4.1	<6.7	<8.2	<8.2	<4.3	NR	<4.9	<4.9	<4.9	<7.78		
SVMW-6A	3/10/2009	No Purge	4.5 to 5	<17.0	<13.4	<9.91	<13.6	<7.99	25	<10.9	65	38	NR	<5.16	<6.60	<59.4	<24.6	16	13	12	41	35	<12.2	<8.61	<11.7	<10.2	<16.8	<20.5	<20.5	<10.6	NR	47	89	160	<7.78		
	3/8/2010	No Purge		18	<13	<9.9	<14	<8.0	24	<11	<22	<11	NR	<10	<6.6	<60	<25	<7.8	<8.7	<8.8	<15	<30	<12	<8.6	<12	<10	<17	<21	<21	<11	NR	<12	<12	<12	<7.78		
SVMW-6B	3/10/2009	No Purge	9.5 to 10	10	<2.69	<1.98	<2.73	6.7	110	30	100	29	NR	12	<1.32	90	<4.92	16	5.9	<1.76	130	91	9.8	6.2	4.2	<2.05	<3.35	24	9.8	9.4	NR	42	54	140	<7.78		
	3/8/2010	No Purge		55	<13	<9.9	<14	<8.0	25	<11	<22	<11	NR	<10	<6.6	<60	<25	13	<8.7	<8.8	<15	<30	<12	<8.6	<12	<10	<17	<21	<21	<11	NR	<12	16	43	<7.78		
SVMW-7A	3/10/2009	No Purge	4.5 to 5	<17.0	<13.4	<9.91	<13.6	<7.99	34	<10.9	33	4.8	NR	<5.16	<6.60	<59.4	27	17	13	<8.81	38	44	<12.2	<8.61	<11.7	<10.2	<16.8	<20.5	<20.5	<10.6	NR	<12.3	<12.3	<12.3	<7.78		
	3/8/2010	No Purge		<17	<13	<9.9	<14	<8.0	15.0	<11	<22	<11	NR	<10	<6.6	<60	<25	<7.8	<8.7	<8.8	<15	<30	49	<8.6	<12	<10	<17	<21	<21	<11	NR	<12	<12	<12	<7.78		
SVMW-7B	3/10/2009	No Purge	9.5 to 10	<17.0	29	<9.91	<13.6	<7.99	57	14	42	<10.9	NR	<5.16	<6.60	74	<24.3	<7.78	10	<8.81	64	53	16	<8.61	<11.7	<10.2	<16.8	<20.5	<20.5	<10.6	NR	<12.3	<12.3	<12.3	<7.78		
	3/8/2010	No Purge		<17	<13	<9.9	<14	<8.0	45	<11	100	59	NR	<10	<6.6	<60	<25	<7.8	<8.7	<8.8	<5.0	<10	11	<8.6	<12	11	<17	<21	<21	<11	NR	13	31	33	<7.78		
SVMW-8A	3/10/2010	No Purge	2.5 to 5	26	<13	<9.9	<14	<3.2	14	<4.3	9.5	<4.3	NR	<4.1	<2.6	43	<10	12	<3.5	9.5	<5.9	<12	6.8	<3.4	<4.7	<4.1	<6.7	<8.2	<8.2	<4.3	NR	<4.9	<4.9	7.4	<7.78		
SVMW-8B	3/10/2010	No Purge	7.5 to 10	35	<5.4	<4.0	<5.5	<3.2	17	12	334	308 D2	NR	5.0	<2.6	40	<10	21	<3.5	4.2	<5.9	<12	9.3	<3.4	<4.7	4.5	<6.7	<8.2	<8.2	<4.3	NR	89	241	590 D2	<7.78		
SVMW-8C	3/10/2010	No Purge	17.5 to 20	35	<5.4	<4.0	<5.5	6.7	139	6.1	15	5.6	NR	39	<2.6	90	<10	72	<3.5	6.3	<5.9	<12	12	<3.4	<4.7	9.0	<6.7	<8.2	<8.2	<4.3	NR	<4.9	<4.9	9.8	<7.78		
SVMW-8D	3/10/2010	No Purge	27.5 to 30	16	<5.4	<4.0	<5.5	5.1	16	<4.3	<8.7	<4.3	NR	5.8	<2.6	81	<10	9.0	<3.5	3.5	<5.9	<12	<4.9	<3.4	<4.7	4.9	<6.7	<8.2	<8.2	<4.3	NR	<4.9	<4.9	6.4	<7.78		
SVMW-8E	3/10/2010	No Purge	37.5 to 40	68	13	<4.0	<5.5	<3.2	14	<4.3	12	5.2	NR	<4.1	<2.6	55	<10	16	<3.5	<3.5	13	<12	24	<3.4	<4.7	<4.1	<6.7	<8.2	<8.2	<4.3	NR	<4.9	6.4	15	<7.78		
SVMW-8F	3/10/2010	No Purge	47.5 to 50	12	<5.4	<4.0	<5.5	12	49	4.3	13	6.1	NR	56	4.2	309 D2	<10	65	3.8	<3.5	47	<12	6.8	<3.4	<4.7	18	<6.7	<8.2	<8.2	<4.3	NR	<4.9	<4.9	7.4	<7.78		
SVMW-8G	3/11/2010	No Purge	57.5 to 60	16	<5.4	<4.0	<5.5	5.7	21	<4.3	13	5.2	NR	13	<2.6	107	<10	17	<3.5	5.6	11	<12	<4.9	<3.4	<4.7	7.0	<6.7	<8.2	<8.2	<4.3	NR	<4.9	<4.9	6.4	<7.78		
SVMW-8H	3/11/2010	No Purge	67.5 to 70	<6.8	<5.4	<4.0	<5.5	<3.2	14	<4.3	<8.7	<4.3	NR	<4.1	<2.6	60	<10	<3.1	<3.5	3.5	8.3	<12	<4.9	<3.4	<4.7	4.5	<6.7	<8.2	<8.2	<4.3	NR	<4.9	<4.9	<4.9	<7.78		
SVMW-9A	3/12/2010	No Purge	4.5 to 5	95	<5.4	<4.0	<5.5	12	53	5.2	30	12	NR	<4.1	<2.6	131 D2	<10	14	<3.5	6.3	12	<12	21	<3.4	5.6	<4.1	<6.7	<8.2	<8.2	<4.3	NR	5.4	5.4	11	<7.78		
SVMW-9B	3/12/2010	No Purge	9.5 to 10	163	<5.4	<4.0	<5.5	4.8	49	<4.3	17	8.7	NR	18	<2.6	36	<10	8.1	<3.5	4.9	<5.9	<12	45.0	<3.4	5.1	<4.1	22	<8.2	<8.2	<4.3	NR	<4.9	11	12	<7.78		
SVMW-10A	3/11/2010	No Purge	4.5 to 5	251	<5.4	<4.0	<5.5	30	83	65	256	139	NR	<4.1	<2.6	238 D2	<10	131	<3.5	<3.5	32	<12	6.3	<3.4	14	25.0	<6.7	<8.2	<8.2	<4.3	NR	74	167	187	<7.78		
SVMW-10B	3/11/2010	No Purge	9.5 to 10	515 D2	7.0	<4.0	<5.5	6.1	113	4.8	20	8.7	NR	23	<2.6	164 D2	<10	22	<3.5	<3.5	30	<12	16	<3.4	<4.7	<4.1	<6.7	<8.2	<8.2	<4.3	NR	<4.9	<4.9	10	<7.78		
SVMW-11A	3/9/2010	No Purge	4.5 to 5	3,100	<54	<41	<55	<32	<38	<43	<87	<43	NR	<41	<26	<238	<98	<31	<35	<35	<59	<118	<49	<34	<47	<41	<67	<82	<82	<43	NR	<49	<49	<49	<7.78		
SVMW-11B	3/9/2010	No Purge	9.5 to 10	4,500	59	<41	<55	<32	41	<43	<87	<43	NR	<41	<26	309 D2	<98	<31	<35	<35	<59	<118	73	<34	<47	<41	<67	<82	<82	<43	NR	<49	<49	<49	<7.78		
SVMW-12A	3/9/2010	No Purge	4.5 to 5	51	<13	<9.9	<14	11	26	<11	24	<11	NR	<10	<6.6	160 D2	<25	34	<8.7	<8.8	<15	<30	22	<8.6	<12	<10	<17	<21	<21	<11	NR	<12	<12	<12	<7.78		
SVMW-12B	3/9/2010	No Purge	9.5 to 10	81	<13	<9.9	<14	11	64	<11	<18	<4.3	NR	23	<6.6	330 D2	<25	34	<8.7	<8.8	<15	<30	36	<8.6	<12	11	<17	<21	<21	<11	NR	<12	<12	<12	<7.78		
ADHS AAAQG (1-hour)				1,300	810	130	57,000	1,700	4,400	4,500	5,400	5,400	57,000	770	NL	20,000	NL	90	NL	5,400	600	6,100	60	NL	NL	NL	17,000	78	NL	NL	NL	NL	NL	NL	1,400	1,400	100
ADHS AAAQG (24-hour)				640	210	63	15,000	44	3,000	3,500	3,500	3,500	15,000	200	NL	14,000	NL	24	NL	1,400	160	4,700	16	NL	NL	NL	16,000	21	NL	NL	NL	NL	NL	NL	990	990	40
ADHS AAAQG (Annual)				1.7	0.58	NL	NL	0.12	NL	NL	NL	NL	NL	0.56	NL	NL	NL	NL	NL	NL	NL	NL	0.043	NL	NL	NL	NL	0.056	NL	NL	NL	NL	NL	NL	NL	NL	NL
EPA Residential RSL				0.41	1.2	210	5,200	0.31	5,200	0.97	730	730	NL	94	NL	32,000	NL	730	5.2	730	5,200	NL	0.11	6,300	NL	NL	NL	0.066	3,100	31	1,000	1,000	NL	NL	7.3	3.1	
EPA Industrial RSL				2.08	6.13	876	21,900	1.57	21,900	4.91	3,070	3,070	NL	394	NL	135,000	NL	3,070	26.1	3,070	21,900	NL	0.533	26,300	NL	NL	NL	0.331	13,100	131	4,380	4,380	NL	NL	30.7	13.1	

ADHS = Arizona Department of Health Services

AAAQG = Arizona Ambient Air Quality Guidelines

EPA = Environmental Protection Agency

RSL = Regional Screening Level (formerly Preliminary Remediation Goal [PRG])

PCE = Tetrachloroethene

TCE = Trichloroethene

1,1-DCE = 1,1 Dichloroethene

1,1,1-TCA = 1,1,1-Trichloroethane

BDCM = Bromodichloromethane

CD = Carbon Disulfide

MC = Methylene Chloride

MEK = 2-Butanone (Methyl Ethyl Ketone)

THF = Tetrahydrofuran

1,2,4-TMB = 1,2,4-Trimethylbenzene

1,3,5-TMB = 1,3,5-Trimethylbenzene

2,2,4-TMP = 2,2,4-Trimethylpentane

NL =

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010
 20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft amsl	ft amsl
A-Zone Groundwater Monitoring Wells				
MW-1A	10/26/1992	74.20	198.84	124.64
	3/19/1993	72.44	198.84	126.40
	4/21/1993	72.58	198.84	126.26
	6/2/1993	72.66	198.84	126.18
	3/21/1996	72.39	198.84	126.45
	10/3/1996	72.60	198.84	126.24
	6/11/2001	76.89	198.84	121.95
	6/16/2001	76.89	198.84	121.95
	6/25/2001	76.89	198.84	121.95
	1/29/2002	77.09	198.84	121.75
	10/1/2002	76.82	198.84	122.02
	6/7/2004	78.08	198.84	120.76
	11/22/2004	78.17	198.84	120.67
	3/2/2005	78.10	198.84	120.74
	5/31/2005	78.13	198.84	120.71
	10/25/2005	78.34	198.84	120.50
	1/4/2006	78.09	198.84	120.75
	2/20/2006	78.19	198.84	120.65
	3/27/2006	78.18	198.84	120.66
	4/27/2006	78.31	198.84	120.53
	5/15/2006	78.42	198.84	120.42
	10/2/2006	77.40	198.84	121.44
	11/28/2006	78.37	198.84	120.47
	2/19/2007	78.43	198.84	120.41
	5/11/2007	78.39	198.84	120.45
	7/30/2007	78.28	198.84	120.56
	11/12/2007	77.75	198.84	121.09
	2/18/2008	77.42	198.84	121.42
	5/12/2008	77.36	198.84	121.48
	8/4/2008	77.22	198.84	121.62
MW-2A	1/7/1993	72.21	199.11	126.90
	3/19/1993	72.33	199.11	126.78
	4/21/1993	72.54	199.11	126.57
	6/2/1993	72.56	199.11	126.55
	3/21/1996	72.33	199.11	126.78
	10/3/1996	73.00	199.11	126.11
	6/11/2001	77.37	199.11	121.74
	6/16/2001	77.31	199.11	121.80
	6/25/2001	77.41	199.11	121.70
	1/29/2002	77.54	199.11	121.57
	10/1/2002	77.23	199.11	121.88
	6/7/2004	78.58	199.11	120.53
	11/22/2004	78.60	199.11	120.51
	3/2/2005	78.49	199.11	120.62
	5/31/2005	78.16	199.11	120.95
	10/25/2005	78.81	199.11	120.30
	1/4/2006	78.51	199.11	120.60
	2/20/2006	78.61	199.11	120.50
	3/27/2006	78.61	199.11	120.50
	4/27/2006	78.75	199.11	120.36
	5/15/2006	78.87	199.11	120.24
	10/2/2006	78.72	199.11	120.39
	11/28/2006	78.73	199.11	120.38
	2/19/2007	78.78	199.11	120.33
	5/11/2007	78.74	199.11	120.37
	7/30/2007	78.66	199.11	120.45
	11/12/2007	78.16	199.11	120.95
	2/18/2008	77.83	199.11	121.28
	5/12/2008	77.71	199.11	121.40
	8/4/2008	77.60	199.11	121.51
MW-3A	3/19/1993	72.16	198.70	126.54
	4/21/1993	72.32	198.70	126.38
	6/2/1993	72.40	198.70	126.30
	3/21/1996	72.13	198.70	126.57
	10/3/1996	72.35	198.70	126.35
	6/11/2001	76.68	198.70	122.02
	6/16/2001	76.71	198.70	121.99
	6/25/2001	76.70	198.70	122.00
	1/29/2002	76.86	198.70	121.84

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010

20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft amsl	ft amsl
MW-3A	10/1/2002	76.56	198.70	122.14
	6/7/2004	77.88	198.70	120.82
	11/22/2004	77.97	198.70	120.73
	3/2/2005	77.88	198.70	120.82
	5/31/2005	77.96	198.70	120.74
	10/25/2005	78.13	198.70	120.57
	1/4/2006	77.84	198.70	120.86
	2/20/2006	77.95	198.70	120.75
	3/27/2006	77.97	198.70	120.73
	4/27/2006	78.09	198.70	120.61
	5/15/2006	78.22	198.70	120.48
	10/2/2006	78.10	198.70	120.60
	11/28/2006	78.10	198.70	120.60
	2/19/2007	78.17	198.70	120.53
	5/11/2007	78.13	198.70	120.57
	7/30/2007	78.05	198.70	120.65
	11/12/2007	77.50	198.70	121.20
	2/18/2008	77.21	198.70	121.49
	5/12/2008	77.11	198.70	121.59
	8/4/2008	76.95	198.70	121.75
MW-4A	6/7/2004	77.43	197.90	120.47
	11/22/2004	77.43	197.90	120.47
	3/2/2005	77.47	197.90	120.43
	5/31/2005	77.50	197.90	120.40
	10/25/2005	77.71	197.90	120.19
	1/4/2006	77.32	197.90	120.58
	2/20/2006	77.47	197.90	120.43
	3/27/2006	77.48	197.90	120.42
	4/27/2006	77.64	197.90	120.26
	5/15/2006	77.74	197.90	120.16
	10/2/2006	77.54	197.90	120.36
	11/28/2006	77.51	197.90	120.39
	2/19/2007	77.58	197.90	120.32
	5/11/2007	77.56	197.90	120.34
	7/30/2007	77.47	197.90	120.43
	11/12/2007	76.96	197.90	120.94
	2/18/2008	76.63	197.90	121.27
	5/12/2008	76.46	197.90	121.44
	8/4/2008	76.34	197.90	121.56
MW-5A	1/29/2002	77.01	198.25	121.24
	10/1/2002	76.67	198.25	121.58
	6/7/2004	78.00	198.25	120.25
	11/22/2004	78.13	198.25	120.12
	3/2/2005	78.08	198.25	120.17
	5/31/2005	77.49	198.25	120.76
	10/25/2005	78.29	198.25	119.96
	1/4/2006	77.87	198.25	120.38
	2/20/2006	78.03	198.25	120.22
	3/27/2006	78.01	198.25	120.24
	4/27/2006	78.21	198.25	120.04
	5/15/2006	78.28	198.25	119.97
	10/2/2006	78.09	198.25	120.16
	11/28/2006	78.03	198.25	120.22
	2/19/2007	78.10	198.25	120.15
	5/11/2007	78.08	198.25	120.17
	7/30/2007	78.01	198.25	120.24
	11/12/2007	77.49	198.25	120.76
	2/18/2008	77.12	198.25	121.13
	5/12/2008	76.94	198.25	121.31
	8/4/2008	76.88	198.25	121.37
MW-6A	1/29/2002	76.38	197.63	121.25
	10/1/2002	76.12	197.63	121.51
	6/7/2004	77.41	197.63	120.22
	11/22/2004	77.46	197.63	120.17
	3/2/2005	77.32	197.63	120.31
	5/31/2005	77.37	197.63	120.26
	10/25/2005	77.64	197.63	119.99
	1/4/2006	77.29	197.63	120.34
	2/20/2006	77.40	197.63	120.23
	3/27/2006	77.39	197.63	120.24
	4/27/2006	77.54	197.63	120.09

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010

20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft amsl	ft amsl
MW-6A	5/15/2006	77.65	197.63	119.98
	10/2/2006	77.54	197.63	120.09
	11/28/2006	77.49	197.63	120.14
	2/19/2007	77.51	197.63	120.12
	5/11/2007	77.55	197.63	120.08
	7/30/2007	77.44	197.63	120.19
	11/12/2007	76.92	197.63	120.71
	2/18/2008	76.57	197.63	121.06
	5/12/2008	76.42	197.63	121.21
	8/4/2008	76.35	197.63	121.28
MW-7A	1/29/2002	77.69	197.56	119.87
	10/1/2002	77.27	197.56	120.29
	6/7/2004	77.34	197.56	120.22
	11/22/2004	77.07	197.56	120.49
	3/2/2005	77.02	197.56	120.54
	5/31/2005	76.84	197.56	120.72
	10/25/2005	77.15	197.56	120.41
	1/4/2006	76.89	197.56	120.67
	2/20/2006	76.79	197.56	120.77
	3/27/2006	77.22	197.56	120.34
	4/27/2006	77.02	197.56	120.54
	5/15/2006	77.10	197.56	120.46
	10/2/2006	77.04	197.56	120.52
	11/28/2006	77.25	197.56	120.31
	2/19/2007	77.21	197.56	120.35
	5/11/2007	77.10	197.56	120.46
	7/30/2007	77.30	197.56	120.26
	11/12/2007	76.67	197.56	120.89
	2/18/2008	76.32	197.56	121.24
	5/12/2008	76.39	197.56	121.17
	8/4/2008	76.07	197.56	121.49
MW-8A	1/31/2005	76.74	195.38	118.64
	3/2/2005	76.37	195.38	119.01
	5/26/2005	76.28	195.38	119.10
	10/25/2005	76.66	195.38	118.72
	1/4/2006	76.24	195.38	119.14
	2/20/2006	76.25	195.38	119.13
	3/27/2006	76.26	195.38	119.12
	4/27/2006	76.36	195.38	119.02
	5/15/2006	76.44	195.38	118.94
	10/2/2006	76.35	195.38	119.03
	11/28/2006	76.25	195.38	119.13
	2/19/2007	76.23	195.38	119.15
	5/11/2007	76.20	195.38	119.18
	7/30/2007	76.17	195.38	119.21
	11/12/2007	75.76	195.38	119.62
	2/28/2008	75.72	195.38	119.66
	5/12/2008	75.09	195.38	120.29
	8/4/2008	75.07	195.38	120.31
	11/10/08	75.14	195.38	120.24
MW-9A	1/31/2005	77.69	194.78	117.09
	3/2/2005	77.51	194.78	117.27
	5/26/2005	77.34	194.78	117.44
	10/25/2005	77.71	194.78	117.07
	1/4/2006	77.17	194.78	117.61
	2/20/2006	77.22	194.78	117.56
	3/27/2006	77.28	194.78	117.50
	4/27/2006	77.41	194.78	117.37
	5/15/2006	77.41	194.78	117.37
	10/2/2006	77.30	194.78	117.48
	11/28/2006	77.12	194.78	117.66
	2/19/2007	77.18	194.78	117.60
	5/11/2007	77.07	194.78	117.71
	7/30/2007	77.08	194.78	117.70
	11/12/2007	76.61	194.78	118.17
	2/18/2008	76.12	194.78	118.66
	5/12/2008	75.86	194.78	118.92
	8/4/2008	75.87	194.78	118.91
MW-10A	11/10/08	75.98	194.78	118.80
	4/26/2010	76.11	194.78	118.67
MW-10A	1/31/2005	80.63	194.86	114.23

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010

20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft amsl	ft amsl
MW-10A	3/2/2005	79.76	194.86	115.10
	5/26/2005	79.62	194.86	115.24
	10/25/2005	79.84	194.86	115.02
	1/4/2006	79.24	194.86	115.62
	2/20/2006	79.42	194.86	115.44
	3/27/2006	79.49	194.86	115.37
	4/27/2006	79.63	194.86	115.23
	5/15/2006	79.69	194.86	115.17
	10/2/2006	79.50	194.86	115.36
	11/28/2006	79.34	194.86	115.52
	2/19/2007	79.40	194.86	115.46
	5/11/2007	79.30	194.86	115.56
	7/30/2007	79.27	194.86	115.59
	11/12/2007	78.80	194.86	116.06
	2/28/2008	78.22	194.86	116.64
	5/12/2008	77.94	194.86	116.92
	8/4/2008	78.01	194.86	116.85
MW-11A	5/26/2005	98.00	197.98	99.98
	10/25/2005	81.29	197.98	116.69
	1/4/2006	80.94	197.98	117.04
	2/20/2006	80.91	197.98	117.07
	3/27/2006	80.97	197.98	117.01
	4/27/2006	81.06	197.98	116.92
	5/15/2006	81.07	197.98	116.91
	10/2/2006	80.64	197.98	117.34
	11/28/2006	80.99	197.98	116.99
	2/19/2007	80.99	197.98	116.99
	5/11/2007	80.90	197.98	117.08
	7/30/2007	80.95	197.98	117.03
	11/12/2007	80.62	197.98	117.36
	2/18/2008	80.13	197.98	117.85
	5/12/2008	79.87	197.98	118.11
	8/4/2008	79.92	197.98	118.06
MW-12A	4/27/2006	75.89	195.43	119.54
	5/15/2006	75.98	195.43	119.45
	10/2/2006	75.83	195.43	119.60
	11/28/2006	75.79	195.43	119.64
	2/19/2007	75.77	195.43	119.66
	5/11/2007	75.70	195.43	119.73
	7/30/2007	75.70	195.43	119.73
	11/12/2007	75.24	195.43	120.19
	2/18/2008	74.92	195.43	120.51
	5/12/2008	74.76	195.43	120.67
	8/4/2008	74.77	195.43	120.66
	11/10/08	74.75	195.43	120.68
	4/26/2010	74.68	195.43	120.75
MW-13A	4/27/2006	81.47	198.35	116.88
	5/15/2006	81.48	198.35	116.87
	10/2/2006	81.33	198.35	117.02
	11/28/2006	81.07	198.35	117.28
	2/19/2007	81.24	198.35	117.11
	5/11/2007	81.07	198.35	117.28
	7/30/2007	81.14	198.35	117.21
	11/12/2007	80.77	198.35	117.58
	2/18/2008	80.30	198.35	118.05
	5/12/2008	80.05	198.35	118.30
	8/4/2008	80.06	198.35	118.29
	11/10/08	80.13	198.35	118.22
	4/26/2010	80.20	198.35	118.15
MW-14A	4/27/2006	77.48	196.68	119.20
	5/15/2006	77.53	196.68	119.15
	10/2/2006	77.41	196.68	119.27
	11/28/2006	77.28	196.68	119.40
	2/19/2007	77.34	196.68	119.34
	5/11/2007	77.31	196.68	119.37
	7/30/2007	77.28	196.68	119.40
	11/12/2007	76.81	196.68	119.87
	2/18/2008	76.36	196.68	120.32
	5/12/2008	76.11	196.68	120.57
MW-15A	8/4/2008	76.09	196.68	120.59
	4/27/2006	82.06	199.14	117.08

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010

20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft amsl	ft amsl
MW-15A	5/15/2006	82.05	199.14	117.09
	10/2/2006	81.98	199.14	117.16
	11/28/2006	81.79	199.14	117.35
	2/19/2007	81.80	199.14	117.34
	5/11/2007	81.65	199.14	117.49
	7/30/2007	81.68	199.14	117.46
	11/12/2007	81.29	199.14	117.85
	2/18/2008	80.70	199.14	118.44
	5/12/2008	80.40	199.14	118.74
	8/4/2008	80.45	199.14	118.69
	11/10/08	80.59	199.14	118.55
	4/26/2010	80.72	199.14	118.42
MW-16A	5/12/2008	78.33	199.22	120.89
	8/4/2008	78.38	199.22	120.84
	11/10/08	78.43	199.22	120.79
	4/26/2010	78.61	199.22	120.61
MW-17A	11/28/2006	79.48	197.55	118.07
	2/19/2007	79.52	197.55	118.03
	5/11/2007	79.42	197.55	118.13
	7/30/2007	79.43	197.55	118.12
	11/12/2007	79.07	197.55	118.48
	2/19/2008	79.05	197.55	118.50
	5/12/2008	78.35	197.55	119.20
	8/4/2008	78.36	197.55	119.19
	11/10/08	78.36	197.55	119.19
	4/26/2010	78.52	197.55	119.03
MW-18A	11/28/2006	80.80	198.01	117.21
	2/19/2007	80.81	198.01	117.20
	5/11/2007	80.72	198.01	117.29
	7/30/2007	80.72	198.01	117.29
	11/12/2007	80.31	198.01	117.70
	2/18/2008	79.80	198.01	118.21
	5/12/2008	79.51	198.01	118.50
	8/4/2008	79.52	198.01	118.49
	11/10/08	79.64	198.01	118.37
MW-19A	4/26/2010	79.77	198.01	118.24
	11/28/2006	79.17	198.90	119.73
	2/19/2007	79.40	198.90	119.50
	5/11/2007	79.24	198.90	119.66
	7/30/2007	79.21	198.90	119.69
	11/12/2007	78.67	198.90	120.23
	2/18/2008	78.21	198.90	120.69
	5/12/2008	77.98	198.90	120.92
MW-20A	8/4/2008	77.99	198.90	120.91
	11/28/2006	78.02	196.93	118.91
	2/19/2007	78.05	196.93	118.88
	5/11/2007	77.99	196.93	118.94
	7/30/2007	77.98	196.93	118.95
	11/12/2007	77.48	196.93	119.45
	2/28/2008	76.91	196.93	120.02
	5/12/2008	76.66	196.93	120.27
MW-21A	8/4/2008	76.74	196.93	120.19
	5/11/2007	82.25	198.58	116.33
	7/30/2007	82.29	198.58	116.29
	11/12/2007	81.91	198.58	116.67
	2/18/2008	81.31	198.58	117.27
	4/16/2008	81.24	198.58	117.34
	5/12/2008	81.05	198.58	117.53
	6/12/2008	81.52	198.58	117.06
	8/4/2008	81.05	198.58	117.53
MW-25A	11/10/08	81.21	198.58	117.37
	4/26/2010	81.27	198.58	117.31
	4/26/2010	80.63	198.72	118.09
MW-101A	3/21/1996	70.27	197.20	126.93
	10/3/1996	70.49	197.20	126.71
	6/11/2001	74.81	197.20	122.39
	6/25/2001	74.84	197.20	122.36
	1/29/2002	74.96	197.20	122.24
	10/1/2002	74.96	197.20	122.24
	6/7/2004	76.09	197.20	121.11

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010

20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft amsl	ft amsl
MW-101A	11/22/2004	76.22	197.20	120.98
	3/2/2005	76.13	197.20	121.07
	5/31/2005	76.19	197.20	121.01
	10/25/2005	76.37	197.20	120.83
	1/4/2006	76.18	197.20	121.02
	2/20/2006	76.20	197.20	121.00
	3/27/2006	76.21	197.20	120.99
	4/27/2006	76.38	197.20	120.82
	5/15/2006	76.46	197.20	120.74
	10/2/2006	76.49	197.20	120.71
	11/28/2006	76.42	197.20	120.78
	2/19/2007	76.55	197.20	120.65
	5/11/2007	76.51	197.20	120.69
	7/30/2007	76.42	197.20	120.78
	11/12/2007	75.83	197.20	121.37
	2/18/2008	75.51	197.20	121.69
	5/12/2008	75.49	197.20	121.71
	8/4/2008	75.35	197.20	121.85
	11/10/08	75.27	197.20	121.93
	4/26/2010	75.20	197.20	122.00
MW-102A	11/14/1996	72.17	198.48	126.31
	6/11/2001	76.53	198.48	121.95
	6/16/2001	76.57	198.48	121.91
	6/25/2001	76.54	198.48	121.94
	1/29/2002	76.71	198.48	121.77
	10/1/2002	76.44	198.48	122.04
	6/7/2004	77.70	198.48	120.78
	11/22/2004	77.70	198.48	120.78
	3/2/2005	77.65	198.48	120.83
	5/31/2005	77.72	198.48	120.76
	10/25/2005	77.96	198.48	120.52
	1/4/2006	77.70	198.48	120.78
	2/20/2006	77.82	198.48	120.66
	3/27/2006	77.81	198.48	120.67
	4/27/2006	77.92	198.48	120.56
	5/15/2006	78.04	198.48	120.44
	10/2/2006	78.01	198.48	120.47
	11/28/2006	78.03	198.48	120.45
	2/19/2007	78.05	198.48	120.43
	5/11/2007	77.99	198.48	120.49
	7/30/2007	77.92	198.48	120.56
	11/12/2007	77.38	198.48	121.10
	2/18/2008	77.05	198.48	121.43
	5/12/2008	77.01	198.48	121.47
	8/4/2008	76.98	198.48	121.50
PZ-1A	2/18/2008	75.47	195.03	119.56
	5/12/2008	75.26	195.03	119.77
	8/4/2008	75.15	195.03	119.88
PZ-2A	2/18/2008	76.22	195.85	119.63
	5/12/2008	75.89	195.85	119.96
	8/4/2008	75.87	195.85	119.98
DMW-6	1/4/2006	64.37	185.87	121.50
	2/24/2006	64.38	185.87	121.49
	3/27/2006	64.38	185.87	121.49
	4/27/2006	64.51	185.87	121.36
	5/15/2006	64.59	185.87	121.28
	10/3/2006	65.11	185.87	120.76
	11/28/2006	65.09	185.87	120.78
	2/19/2007	65.05	185.87	120.82
	5/11/2007	64.88	185.87	120.99
	7/30/2007	64.87	185.87	121.00
	11/12/2007	64.21	185.87	121.66
	2/19/2008	64.02	185.87	121.85
	5/12/2008	64.18	185.87	121.69
	8/4/2008	63.89	185.87	121.98
DMW-10	1/4/2006	70.77	191.26	120.49
	2/24/2006	70.84	191.26	120.42
	3/27/2006	70.82	191.26	120.44
	4/27/2006	70.95	191.26	120.31
	5/15/2006	71.00	191.26	120.26
	10/3/2006	71.08	191.26	120.18

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010

20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft amsl	ft amsl
DMW-10	11/28/2006	71.05	191.26	120.21
	2/19/2007	71.01	191.26	120.25
	5/11/2007	70.92	191.26	120.34
	7/30/2007	70.89	191.26	120.37
	11/12/2007	70.26	191.26	121.00
	2/19/2008	70.11	191.26	121.15
	5/12/2008	70.14	191.26	121.12
	8/4/2008	69.89	191.26	121.37
DMW-11	1/4/2006	72.21	192.77	120.56
	2/24/2006	72.25	192.77	120.52
	3/27/2006	72.25	192.77	120.52
	4/27/2006	72.37	192.77	120.40
	5/15/2006	72.45	192.77	120.32
	10/3/2006	72.56	192.77	120.21
	11/28/2006	72.54	192.77	120.23
	2/19/2007	72.52	192.77	120.25
	5/11/2007	72.39	192.77	120.38
	7/30/2007	72.31	192.77	120.46
	11/12/2007	71.71	192.77	121.06
	2/19/2008	71.54	192.77	121.23
	5/12/2008	71.57	192.77	121.20
	8/4/2008	71.30	192.77	121.47
	11/10/08	71.47	192.77	121.30
DMW-16	6/7/2004	78.75	196.49	117.74
	11/22/2004	78.69	196.49	117.80
DMW-17	6/7/2004	79.53	196.88	117.35
	11/22/2004	79.34	196.88	117.54
DMW-18	6/7/2004	80.56	197.27	116.71
	11/22/2004	80.51	197.27	116.76
DMW-25	1/4/2006	72.54	192.84	120.30
	2/24/2006	72.55	192.84	120.29
	3/27/2006	72.62	192.84	120.22
	4/27/2006	72.75	192.84	120.09
	5/15/2006	72.83	192.84	120.01
	10/3/2006	72.75	192.84	120.09
	11/28/2006	72.76	192.84	120.08
	2/19/2007	72.73	192.84	120.11
	5/11/2007	72.67	192.84	120.17
	7/30/2007	72.59	192.84	120.25
	11/12/2007	72.05	192.84	120.79
	2/19/2008	71.88	192.84	120.96
	5/12/2008	71.80	192.84	121.04
	8/4/2008	71.59	192.84	121.25
DEW-19	1/4/2006	65.10	186.04	120.94
	2/24/2006	65.14	186.04	120.90
	3/27/2006	65.09	186.04	120.95
	4/27/2006	65.16	186.04	120.88
	5/15/2006	65.27	186.04	120.77
	10/2/2006	65.76	186.04	120.28
	11/28/2006	65.73	186.04	120.31
	2/19/2007	65.65	186.04	120.39
	5/11/2007	65.41	186.04	120.63
	7/30/2007	65.37	186.04	120.67
	11/12/2007	64.58	186.04	121.46
	2/19/2008	64.38	186.04	121.66
	5/12/2008	64.70	186.04	121.34
	8/4/2008	64.39	186.04	121.65
B-Zone Groundwater Monitoring Wells				
MW-8B	11/28/2006	75.94	195.25	119.31
	2/19/2007	76.56	195.25	118.69
	5/11/2007	76.48	195.25	118.77
	7/30/2007	76.48	195.25	118.77
	11/12/2007	76.06	195.25	119.19
	2/18/2008	75.59	195.25	119.66
	5/12/2008	75.37	195.25	119.88
	8/4/2008	75.36	195.25	119.89
	11/10/08	75.43	195.25	119.82
	4/26/2010	75.62	195.25	119.63
MW-18B	11/28/2006	80.68	197.99	117.31
	2/19/2007	80.78	197.99	117.21

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010

20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft amsl	ft amsl
MW-18B	5/11/2007	80.69	197.99	117.30
	7/30/2007	80.70	197.99	117.29
	11/12/2007	80.30	197.99	117.69
	2/19/2008	79.72	197.99	118.27
	5/12/2008	79.47	197.99	118.52
	8/4/2008	79.45	197.99	118.54
MW-21B	5/11/2007	82.11	198.51	116.40
	7/30/2007	82.23	198.51	116.28
	11/12/2007	81.87	198.51	116.64
	2/18/2008	81.29	198.51	117.22
	4/16/2008	81.23	198.51	117.28
	5/12/2008	81.07	198.51	117.44
	6/12/2008	81.53	198.51	116.98
	8/4/2008	81.09	198.51	117.42
	11/10/08	81.27	198.51	117.24
	4/26/2010	81.27	198.51	117.24
MW-22B	11/12/2007	76.06	195.29	119.23
	2/18/2008	75.84	195.29	119.45
	5/12/2008	75.69	195.29	119.60
	8/4/2008	75.63	195.29	119.66
MW-23B	11/12/2007	76.80	196.40	119.60
	2/18/2008	76.57	196.40	119.83
	5/12/2008	76.20	196.40	120.20
	8/4/2008	76.32	196.40	120.08
	11/10/08	76.46	196.40	119.94
	4/26/2010	76.56	196.40	119.84
MW-24B	2/18/2008	79.99	199.52	119.53
	5/12/2008	80.72	199.52	118.80
	8/4/2008	80.81	199.52	118.71
	11/10/08	80.85	199.52	118.67
	4/26/2010	80.76	199.52	118.76
MW-25B	4/26/2010	80.94	199.06	118.12
MW-102B1	11/14/1996	72.13	198.44	126.31
	6/11/2001	76.49	198.44	121.95
	6/16/2001	76.53	198.44	121.91
	6/25/2001	76.50	198.44	121.94
	1/29/2002	76.69	198.44	121.75
	10/1/2002	76.37	198.44	122.07
	6/7/2004	77.70	198.44	120.74
	11/22/2004	77.76	198.44	120.68
	3/2/2005	77.72	198.44	120.72
	5/31/2005	77.73	198.44	120.71
	10/25/2005	77.92	198.44	120.52
	1/4/2006	77.61	198.44	120.83
	2/20/2006	77.75	198.44	120.69
	3/27/2006	77.76	198.44	120.68
	4/27/2006	77.91	198.44	120.53
	5/15/2006	78.01	198.44	120.43
	10/2/2006	77.92	198.44	120.52
	11/28/2006	77.88	198.44	120.56
	2/19/2007	77.96	198.44	120.48
	5/11/2007	77.94	198.44	120.50
	7/30/2007	77.84	198.44	120.60
	11/12/2007	77.29	198.44	121.15
	2/18/2008	76.99	198.44	121.45
	5/12/2008	76.84	198.44	121.60
	8/4/2008	76.73	198.44	121.71
	11/10/08	76.75	198.44	121.69
	4/26/2010	76.70	198.44	121.74
MW-102B2	11/14/1996	72.18	198.51	126.33
	6/11/2001	76.57	198.51	121.94
	6/16/2001	76.62	198.51	121.89
	6/25/2001	76.60	198.51	121.91
	1/29/2002	76.65	198.51	121.86
	10/1/2002	76.39	198.51	122.12
	6/7/2004	77.80	198.51	120.71
	11/22/2004	77.80	198.51	120.71
	3/2/2005	77.65	198.51	120.86
	5/31/2005	77.83	198.51	120.68
	10/25/2005	78.00	198.51	120.51
	1/4/2006	77.59	198.51	120.92

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010

20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft. amsl	ft. amsl
MW-102B2	2/20/2006	77.74	198.51	120.77
	3/27/2006	77.76	198.51	120.75
	4/27/2006	77.93	198.51	120.58
	5/15/2006	78.04	198.51	120.47
	10/2/2006	77.98	198.51	120.53
	11/28/2006	77.77	198.51	120.74
	2/19/2007	77.90	198.51	120.61
	5/11/2007	77.98	198.51	120.53
	7/30/2007	77.81	198.51	120.70
	11/12/2007	77.34	198.51	121.17
	2/18/2008	76.97	198.51	121.54
	5/12/2008	76.74	198.51	121.77
	8/4/2008	76.76	198.51	121.75
MW-103B	11/22/2004	77.88	198.63	120.75
	3/2/2005	77.94	198.63	120.69
	5/31/2005	77.98	198.63	120.65
	10/25/2005	78.11	198.63	120.52
	1/4/2006	77.67	198.63	120.96
	2/20/2006	77.84	198.63	120.79
	3/27/2006	77.87	198.63	120.76
	4/27/2006	78.04	198.63	120.59
	5/15/2006	78.14	198.63	120.49
	10/2/2006	78.00	198.63	120.63
	11/28/2006	77.90	198.63	120.73
	2/19/2007	78.05	198.63	120.58
	5/11/2007	78.33	198.63	120.30
	7/30/2007	77.98	198.63	120.65
	11/12/2007	77.47	198.63	121.16
	2/18/2008	77.19	198.63	121.44
	5/12/2008	76.88	198.63	121.75
	8/4/2008	76.84	198.63	121.79
MW-104B	11/22/2004	80.10	198.59	118.49
	3/2/2005	78.28	198.59	120.31
	5/31/2005	78.32	198.59	120.27
	10/25/2005	78.56	198.59	120.03
	1/4/2006	78.11	198.59	120.48
	2/20/2006	78.26	198.59	120.33
	3/27/2006	78.29	198.59	120.30
	4/27/2006	78.45	198.59	120.14
	5/15/2006	78.52	198.59	120.07
	10/2/2006	78.32	198.59	120.27
	11/28/2006	78.29	198.59	120.30
	2/19/2007	78.37	198.59	120.22
	5/11/2007	78.44	198.59	120.15
	7/30/2007	78.30	198.59	120.29
	11/12/2007	77.79	198.59	120.80
	2/18/2008	77.47	198.59	121.12
	5/12/2008	77.19	198.59	121.40
	8/4/2008	77.24	198.59	121.35
PZ-1B	2/18/2008	75.40	194.99	119.59
	5/12/2008	75.14	194.99	119.85
	8/4/2008	75.12	194.99	119.87
PZ-2B	2/18/2008	76.12	195.79	119.67
	5/12/2008	75.85	195.79	119.94
	8/4/2008	75.85	195.79	119.94
EW-1	2/18/2008	74.75	194.60	119.85
	5/12/2008	74.80	194.60	119.80
	8/4/2008	74.77	194.60	119.83
C-Zone Groundwater Monitoring Wells				
MW-8C	5/11/2007	76.69	195.24	118.55
	7/30/2007	76.73	195.24	118.51
	11/12/2007	76.31	195.24	118.93
	2/18/2008	75.72	195.24	119.52
	5/12/2008	75.53	195.24	119.71
	8/4/2008	75.60	195.24	119.64
	11/10/08	75.69	195.24	119.55
MW-17C	4/26/2010	75.72	195.24	119.52
	11/12/2007	79.01	197.94	118.93
	2/18/2008	78.43	197.94	119.51
	5/12/2008	78.19	197.94	119.75

TABLE 3
DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
October 1992 through April 2010

20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	DTW	CASING ELEVATION	ELEVATION
		feet	ft amsl	ft amsl
MW-17C	8/4/2008	78.27	197.94	119.67
	11/10/08	78.27	197.94	119.67
	4/26/2010	78.31	197.94	119.63
MW-21C	5/11/2007	81.75	198.39	116.64
	7/30/2007	82.01	198.39	116.38
	11/12/2007	81.71	198.39	116.68
	2/18/2008	81.07	198.39	117.32
	4/16/2008	81.02	198.39	117.37
	5/12/2008	80.85	198.39	117.54
	6/12/2008	81.33	198.39	117.06
	8/4/2008	80.89	198.39	117.50
	9/19/2008	80.89	198.39	117.50
	10/24/08	81.03	198.39	117.36
	11/10/08	81.10	198.39	117.29
	12/19/2008	81.00	198.39	117.39
	4/26/2010	81.10	198.39	117.29
MW-103C	11/22/2004	77.98	198.60	120.62
	3/2/2005	78.12	198.60	120.48
	5/31/2005	77.08	198.60	121.52
	10/25/2005	78.25	198.60	120.35
	1/4/2006	77.65	198.60	120.95
	2/20/2006	77.86	198.60	120.74
	3/27/2006	77.91	198.60	120.69
	4/27/2006	78.09	198.60	120.51
	5/15/2006	78.20	198.60	120.40
	10/2/2006	78.02	198.60	120.58
	11/28/2006	77.90	198.60	120.70
	2/19/2007	78.04	198.60	120.56
	5/11/2007	78.69	198.60	119.91
	7/30/2007	77.94	198.60	120.66
	11/12/2007	77.59	198.60	121.01
	2/18/2008	77.15	198.60	121.45
	5/12/2008	76.92	198.60	121.68
	8/4/2008	76.88	198.60	121.72
	11/10/08	76.85	198.60	121.75
	4/26/2010	76.90	198.60	121.70
MW-104C	11/22/2004	81.00	198.62	117.62
	3/2/2005	78.82	198.62	119.80
	5/31/2005	78.74	198.62	119.88
	10/25/2005	79.03	198.62	119.59
	1/4/2006	78.44	198.62	120.18
	2/20/2006	78.63	198.62	119.99
	3/27/2006	78.65	198.62	119.97
	4/27/2006	78.83	198.62	119.79
	5/15/2006	78.88	198.62	119.74
	10/2/2006	78.71	198.62	119.91
	11/28/2006	78.63	198.62	119.99
	2/19/2007	78.72	198.62	119.90
	5/11/2007	78.96	198.62	119.66
	7/30/2007	78.66	198.62	119.96
	11/12/2007	78.15	198.62	120.47
	2/18/2008	77.86	198.62	120.76
	5/12/2008	77.50	198.62	121.12
	8/4/2008	77.66	198.62	120.96
PZ-1C	2/18/2008	75.55	194.91	119.36
	5/12/2008	75.25	194.91	119.66
	8/4/2008	75.22	194.91	119.69
PZ-2C	2/18/2008	76.27	195.75	119.48
	5/12/2008	75.98	195.75	119.77
	8/4/2008	76.02	195.75	119.73

NOTES:

DTW = Depth to Water

ft amsl = Feet Above Mean Sea Level

DTW measurement were not collected in monitoring Wells DMW-16, DMW-17, and DMW-18 due to presence of diesel product.

TABLE 4
MONITORING WELL CONSTRUCTION DETAILS
 20th and Factor WQARF Site, Yuma, Arizona

Current Well ID	Previous Well ID	Cadastral Location	ADWR Number	Surveyed Measuring Point (ft amsl)	Diameter (inches)	Total Depth of Borehole (feet)	Screened Interval (feet bgs)
A-Zone Groundwater Monitoring Wells							
MW-1A	MW-1	(C-08-23)34cba	55-537043	198.84	2	95	65 - 95
MW-2A	MW-2	(C-08-23)34cba	55-537614	199.11	2	95	65 - 95
MW-3A	MW-3	(C-08-23)34cba	55-537615	198.70	2	84	64 - 84
MW-4A	MW-4	(C-08-23)34cba	55-201459	197.90	4	105	65 - 105
MW-5A	MW-5	(C-08-23)34abc	55-588281	198.25	4	105	62.5 - 104.5
MW-6A	MW-6	(C-08-23)34abc	55-588282	197.63	4	103.5	61 - 103
MW-7A	MW-7	(C-08-23)34abc	55-588279	197.56	4	110	62.5 - 103.5
MW-8A	MW-8	(C-08-23)33add	55-203693	195.38	4	105.4	65.4 - 105.4
MW-9A	MW-9	(C-08-23)33add	55-203692	194.78	4	101.4	61.4 - 101.4
MW-10A	MW-10	(C-08-23)33daa	55-203691	194.86	4	104	64 - 104
MW-11A	MW-11	(C-08-23)33abd	55-902168	197.98	4	105	63 - 105
MW-12A	MW-12	(C-08-23)34bcc	55-904512	195.43	4	107.75	64.75 - 104.75
MW-13A	MW-13	(C-08-23)33ada	55-904513	198.35	4	105	62 - 102
MW-14A	MW-14	(C-08-23)34cbb	55-904514	196.68	4	108	65 - 105
MW-15A	MW-15	(C-08-23)33adc	55-904515	199.14	4	96 ¹	66 - 96
MW-16A	MW-16A	(C-08-23)34cba	55-908808	199.22	4	162	64.5 - 104.5
MW-17A	MW-17	(C-08-23)33adc	55-905870	197.55	4	98	66 - 96
MW-18A	MW-18A	(C-08-23)33aca	55-905871	198.01	4	107	65.5 - 105.5
MW-19A	MW-19	(C-08-23)34cba	55-905873	198.90	4	105	65 - 105
MW-20A	MW-20	(C-08-23)33dda	55-905865	196.93	4	118	65 - 105
MW-21A	MW-21A	(C-08-23)33acb	55-906700	198.58	4	99	69 - 99
MW-25A	MW-25A	(C-08-23)33aad	55-911959	198.72	4	96	65 - 95
MW-101A	MW-101	(C-08-23)34cab	55-555248	197.20	4	90	50 - 90
MW-102A	MW-102A	(C-08-23)34cab	55-556705	198.48	2	90	80 - 90
PZ-1A	PZ-1A	(C-08-23)33add	55-908373	195.03	1.5	95 ³	80 - 95
PZ-2A	PZ-2A	(C-08-23)33add	55-908375	195.85	1.5	105 ³	85 - 100
DMW-6	DMW-6	(C-08-23)34bdd		185.87	4	70.5	50.5 - 70.5
DMW-10	DMW-10	(C-08-23)34bdd		191.26	4	90	60 - 90
DMW-11	DMW-11	(C-08-23)34bdd		192.77	4	90	60 - 90
DMW-16	DMW-16	(C-08-23)34bcc	55-594862	196.49	4	92.5	62 - 92
DMW-17	DMW-17	(C-08-23)34bcc	55-594863	196.88	4	92.5	62 - 92
DMW-18	DMW-18	(C-08-23)34bdd	55-900294	197.27	4	85	52 - 85
DMW-25	DMW-25	(C-08-23)34add	55-901535	192.84		93	62.5 - 92.5
DEW-19	DEW-19	(C-08-23)34bdd		186.04 ²	1; 4	87	57 - 87
B-Zone Groundwater Monitoring Wells							
MW-8B	MW-16	(C-08-23)33add	55-905867	195.25	4	117	107 - 117
MW-18B	MW-18B	(C-08-23)33aca	55-905869	197.99	4	148	137 - 147
MW-21B	MW-21B	(C-08-23)33acb	55-906704	198.51	4	205	161 - 201
MW-22B	MW-22B	(C-08-23)33dab	55-908037	195.29	4	180	115 - 155
MW-23B	MW-23B	(C-08-23)33dab	55-908038	196.40	4	185	120.5 - 160.5
MW-24B	MW-24B	(C-08-23)33adc	55-908311	199.52	4	170	110.5 - 160.5
MW-25B	MW-25B	(C-08-23)33aad	55-911960	199.34	4	178	140 - 170
MW-102B1	MW-102B	(C-08-23)34cab	55-556705	198.44	2	120	110 - 120
MW-102B2	MW-102C	(C-08-23)34cab	55-556705	198.61	2	150	140 - 150
MW-103B	MW-103D	(C-08-23)34cab	55-201457	198.63	2	170	150 - 170
MW-104B	MW-104D	(C-08-23)34cab	55-205754	198.59	4	170	150 - 170
PZ-1B	PZ-1B	(C-08-23)33add	55-908373	194.99	1.5	170 ³	105 - 160
PZ-2B	PZ-2B	(C-08-23)33add	55-908375	195.79	1.5	160 ³	105 - 160
EW-1	EW-1	(C-08-23)33add	55-908295	194.60	12	178	100-160
C-Zone Groundwater Monitoring Wells							
MW-8C	MW-22	(C-08-23)33add	55-906702	195.24	4	225	170 - 210
MW-17C	MW-17C	(C-08-23)33adc	55-907658	197.94	4	207	167-207
MW-21C	MW-21C	(C-08-23)33acb	55-906703	198.39	4	325	275 - 315
MW-103C	MW-103E	(C-08-23)34cab	55-201457	198.60	2	245	220 - 240
MW-104C	MW-104E	(C-08-23)34cab	55-205754	198.62	4	240	220 - 240
PZ-1C	PZ-1C	(C-08-23)33add	55-908373	194.91	1.5	200	170 - 200
PZ-2C	PZ-2C	(C-08-23)33add	55-908375	195.75	1.5	200	170 - 200
Alice Byrne	Alice Byrne	(C-08-23)33bba	55-613927	Unknown	12	203*	Unknown
St. Francis	St. Francis	(C-08-23)33bdb	55-626423	Unknown	10	318*	Unknown

ft amsl = feet above mean sea level

ADWR = Arizona Department of Water Resources

A-Zone Groundwater Monitoring Wells are screened approximately 50 feet to 105 feet bgs.

B-Zone Groundwater Monitoring Wells are screened approximately 105 feet to 170 feet bgs, or in between the two identified clay layers underlying the Site.

C-Zone Groundwater Monitoring Wells are screened approximately 170 feet to 318 feet bgs.

¹ Plugged at 96 feet bgs

² DEW-19A surveyed measuring point (ft amsl) corresponds to the top of the 1-inch casing

³ = Depth of bentonite plugs between nested wells. Total depth of piezometer boreholes was 200 feet bgs.

bgs = below ground surface

DMW, DEW = Monitoring wells owned by Union Pacific Railroad

TABLE 5
SUMMARY OF SELECTED VOCs (µg/L) AND CYANIDES (mg/L) HISTORICALLY DETECTED IN GROUNDWATER SINCE 2001
20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)	BCM (µg/L)	BDCM (µg/L)	DBCM (µg/L)	Bromoform (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	MTBE (µg/L)	2-Butanone (µg/L)	n-Butyl benzene (µg/L)	sec-Butyl benzene (µg/L)	CD (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	4-Isopropyl toluene (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	Toluene (µg/L)	1,2,4- Trimethyl benzene (µg/L)	1,3,5- Trimethyl benzene (µg/L)	Xylenes Total (µg/L)	Acetone (µg/L)	Cyanide, Free ## (mg/L)	Cyanide, Total ** (mg/L)		
		AWQS: 5	AWQS: 5	AWQS: 200	AWQS: 7	AWQS: NE	AWQS: 70	AWQS: 2	AWQS: NE	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 5	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 700	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 1,000	AWQS: NE	AWQS: NE	AWQS: 10,000	AWQS: 10,000	AWQS: 0.2	AWQS: NE	
A-Zone Groundwater Monitoring Wells																																	
MW-1A	6/16/2001	220	0.95	<0.5	<1.0	3.2	<1.0	<1.0	<0.50	<0.5	<0.5	<1.0	<1.0	<0.5	<1.0	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<3.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<0.05	<0.05		
	1/29/2002	320	0.99	1.6	1.2	6	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<0.50	<1.0	<5.0	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	<3.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	2.07	6.68		
	6/10/2004	150;180	1.1;1.4	0.57;0.64	0.9;1.1	3.0;3.2	<0.50;<0.50	<0.50;<0.50	<0.50;<0.50	<0.50;<0.50	<0.50;<0.50	<1.0;<1.0	2.2;2.3	<0.50;<0.50	<2.0;<2.0	<5.0;<5.0	<2.5;<2.5	<1.5;<1.5	<0.50;<0.50	<2.0;<2.0	<2.5;<2.5	<1.5;<1.5	<5.0;<5.0	<2.0;<2.0	<3.0;<3.0	<2.0;<2.0	<1.5;<1.5	<3.0;<3.0	<10;<10	0.35;0.5	2.5;2.6		
	11/30/2004	130	0.61	<0.50	0.56	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.9	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	1.2	2.3		
	6/3/2005	76	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	0.73	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.99	3.1		
	2/21/2006	69	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	2.4	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.34	2.5		
	5/25/2006	35	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.13	1.6		
	10/10/2006	33	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	1.6	4.8		
	12/1/2006	56	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	0.38	6.2		
	2/21/2007	49	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	0.24 D2	3.4 D2		
	5/15/2007	54	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	0.35	3.0 D2		
	8/1/2007	57	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	4.1 D2		
	11/20/2007	39	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	0.54	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.55	4.3 D2		
	2/25/2008	25	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	0.49 D2	4.1 D2			
	5/22/2008	22	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	0.79	0.90 D2		
	8/11/2008	19	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	0.77	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	0.38	0.38 D2		
MW-2A	6/16/2001	390	2.1	<0.5	<1.0	1.5	<0.50	<1.0	<0.5	<0.5	<0.5	<1.0	2.2	<0.5	<1.0	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<3.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	0.97	3.4		
	1/30/2002	420	3.5	0.54	<1.0	1.8	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	3.3	<0.50	<1.0	<5.0	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	<3.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<0.01	1.6		
	6/10/2004	220	3.5	<0.50	0.52	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	2.3	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.038	1.1		
	11/30/2004	160	2.1	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.9	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	1.2		
	6/2/2005	160	2.2	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	4.6	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.076	0.71		
	2/21/2006	99	1.7	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	6	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.041	0.66		
	5/19/2006	110	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<																						

TABLE 5
SUMMARY OF SELECTED VOCs (µg/L) AND CYANIDES (mg/L) HISTORICALLY DETECTED IN GROUNDWATER SINCE 2001
20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)	BCM (µg/L)	BDCEM (µg/L)	DBCEM (µg/L)	Bromoform (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	MTBE (µg/L)	2-Butanone (µg/L)	n-Butyl benzene (µg/L)	sec-Butyl benzene (µg/L)	CD (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	4-Isopropyl toluene (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	Toluene (µg/L)	1,2,4- Trimethyl benzene (µg/L)	1,3,5- Trimethyl benzene (µg/L)	Xylenes Total (µg/L)	Acetone (µg/L)	Cyanide, Free ## (mg/L)	Cyanide, Total ** (mg/L)	
		AWQS: 5	AWQS: 5	AWQS: 200	AWQS: 7	AWQS: NE	AWQS: 70	AWQS: 2	AWQS: NE	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 5	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 700	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 1,000	AWQS: NE	AWQS: NE	AWQS: 10,000	AWQS: 10,000	AWQS: 0.2	AWQS: NE	
MW-5A	12/12/2006	230 D2	1.7	<1.0	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	12
	2/27/2007	200 D2	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<30	<200	1.6 D2	15 D2	
	5/24/2007	180 D2	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	9.3	17	
	8/7/2007	130	0.80	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	0.73	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	4.5	18 D2	
	11/19/2007	120	0.72	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	0.56	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	3.2	22 D2	
	2/25/2008	63	0.69	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	4.4 D2	18 D2	
	5/19/2008	84	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	4.5 D2	18 D2	
8/12/2008	95	0.72	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	0.75	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	13	13 D2	
MW-6A	1/30/2002	120	0.92	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<1.0	<5.0	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	<3.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	0.24	1.2	
	6/8/2004	46;46	1.4;1.5	<0.50;<0.50	<0.50;<0.50	<1.0;<1.0	<0.50;<0.50	<0.50;<0.50	<0.50;<0.50	<0.50;<0.50	<0.50;<0.50	<1.0;<1.0	1.5;1.4	<0.50;<0.50	<2.0;<2.0	<5.0;<5.0	<2.5;<2.5	<1.5;<1.5	<0.50;<0.50	<2.0;<2.0	<2.5;<2.5	<1.5;<1.5	<5.0;<5.0	<2.0;<2.0	<3.0;<3.0	<2.0;<2.0	<1.5;<1.5	<3.0;<3.0	<20;<20	<0.010	<0.010	
	11/29/2004	69	4.3	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	2.7	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	6	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
	6/2/2005	64	8.8	<0.50	0.61	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	2.9	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	6	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/24/2006	55	7.8	<0.50	0.87	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	3.5	0.54	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	6	<2.0	<3.0	<2.0	2.7	<3.0	<20	NA	<0.010	
	5/25/2006	45	8.1	<0.50	0.71	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	3.9	0.59	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	10/11/2006	29	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	12/12/2006	30	2.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	<0.0080	
	2/28/2007	36	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	5/24/2007	77	16	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	1.5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	2.8	3.0	<3.0	<20	<0.025	<0.025	
	8/7/2007	87	16	<0.50	1.4	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	3.5	1.4	<2.0	<5.0	<2.5	<1.5	0.50	<2.0	<2.5	<1.5	7.7	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	0.011	
	11/19/2007	93	18	<0.50	0.97	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	4.3	1.4	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	6.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/25/2008	77	14	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	4.5	0.86	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	5.6	<0.50	<0.50	<0.50	<0.50	2.6	<5.0	NA	<0.02	
	5/19/2008	65	11	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	3.6	0.7	<1.0	<20	<0.50	<0.50	<0.50	<0.50												

TABLE 5
SUMMARY OF SELECTED VOCs (µg/L) AND CYANIDES (mg/L) HISTORICALLY DETECTED IN GROUNDWATER SINCE 2001
20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)	BCM (µg/L)	BDCM (µg/L)	DBCM (µg/L)	Bromoform (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	MTBE (µg/L)	2-Butanone (µg/L)	n-Butyl benzene (µg/L)	sec-Butyl benzene (µg/L)	CD (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	4-Isopropyl toluene (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	Toluene (µg/L)	1,2,4- Trimethyl benzene (µg/L)	1,3,5- Trimethyl benzene (µg/L)	Xylenes Total (µg/L)	Acetone (µg/L)	Cyanide, Free ## (mg/L)	Cyanide, Total ** (mg/L)	
		AWQS: 5	AWQS: 5	AWQS: 200	AWQS: 7	AWQS: NE	AWQS: 70	AWQS: 2	AWQS: NE	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 5	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 700	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 1,000	AWQS: NE	AWQS: NE	AWQS: 10,000	AWQS: 10,000	AWQS: 0.2	AWQS: NE	
MW-10A	10/4/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080
	12/11/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.2	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	<0.0080	
	2/20/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.5	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	5/23/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.025	<0.025	
	8/2/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	6.3	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
	11/19/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	6.4	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/21/2008	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	6.9	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	5/14/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	6.5	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
8/6/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	9.0	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
MW-11A	5/26/2005	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	1.1	0.86	<1.0	5.9	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	10	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/24/2006	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	4.5	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.0050	
	5/17/2006	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	4.7	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	10/4/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.1	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	12/1/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	2/20/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	5/22/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	7/31/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	4.1	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
	11/14/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	3.2	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/21/2008	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	3.1	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	5/14/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	2.5	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	8/6/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	2.9	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
MW-12A	5/23/2006	4.8	2.1	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	10/5/2006	3.6	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080
	12/8/2006	3.4	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	<0.0080	
	2/27/2007	3.4	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	0.0099	
	5/24/2007	4.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.025	<0.025	
	8/2/2007	4.1	1.4	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	0.88	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
	11/19/2007	4.5	1.2	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	0.83	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/28/2008	2.8	1.2	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	0.88	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	5/16/2008	2.8	1.0	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	0.7	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	0.043	0.043	
	8/8/2008	2.5	1.0	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	0.71	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	0.065	0.065	
	11/13/2008	2.1	0.74	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	1.2	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	4/28/2010	2.1	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	3.4	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
MW-13A	5/24/2006	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	10/4/2006	110	19	<1.0	<1.0	2.4	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	12/11/2006	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3																			

TABLE 5
SUMMARY OF SELECTED VOCs (µg/L) AND CYANIDES (mg/L) HISTORICALLY DETECTED IN GROUNDWATER SINCE 2001
20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)	BCM (µg/L)	BDCM (µg/L)	DBCM (µg/L)	Bromoform (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	MTBE (µg/L)	2-Butanone (µg/L)	n-Butyl benzene (µg/L)	sec-Butyl benzene (µg/L)	CD (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	4-Isopropyl toluene (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	Toluene (µg/L)	1,2,4- Trimethyl benzene (µg/L)	1,3,5- Trimethyl benzene (µg/L)	Xylenes Total (µg/L)	Acetone (µg/L)	Cyanide, Free ## (mg/L)	Cyanide, Total ** (mg/L)	
		AWQS: 5	AWQS: 5	AWQS: 200	AWQS: 7	AWQS: NE	AWQS: 70	AWQS: 2	AWQS: NE	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 5	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 700	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 1,000	AWQS: NE	AWQS: NE	AWQS: 10,000	AWQS: 10,000	AWQS: 0.2	AWQS: NE	
MW-16A	4/27/2010	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	1.0	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
MW-17A	12/6/2006	5.0	11	<1.0	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	<3.0	<20	NA	NA	
	2/28/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	13	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	5/23/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	15	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.025	0.027	
	7/31/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	14	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
	11/18/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	8.7	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/22/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	5.8	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	5/14/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	3.9	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	8/6/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	4.1	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	11/12/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	3.0	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	4/27/2010	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	2.0	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02
MW-18A	12/4/2006	1.5	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	<0.0080
	2/26/2007	3.6	5.9	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	0.0093
	5/23/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.025	<0.025
	8/2/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.9	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
	11/16/2007	<0.50	0.65	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/25/2008	2.2	3.8	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	1.6	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02
	5/20/2008	5.4	7.1	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	1.1	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02
	8/12/2008	6.6	10	<0.50	1.8	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	1.8	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02
	11/13/2008	<0.50	0.53	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	1.5	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02
	4/28/2010	13	14	<0.50	4.4	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	1.9	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02
MW-19A	12/6/2006	12	<1.0	<1.0	<1.0	<1.0	<1.																									

TABLE 5
SUMMARY OF SELECTED VOCs (µg/L) AND CYANIDES (mg/L) HISTORICALLY DETECTED IN GROUNDWATER SINCE 2001
20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)	BCM (µg/L)	BDCM (µg/L)	DBCM (µg/L)	Bromoform (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	MTBE (µg/L)	2-Butanone (µg/L)	n-Butyl benzene (µg/L)	sec-Butyl benzene (µg/L)	CD (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	4-Isopropyl toluene (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	Toluene (µg/L)	1,2,4- Trimethyl benzene (µg/L)	1,3,5- Trimethyl benzene (µg/L)	Xylenes Total (µg/L)	Acetone (µg/L)	Cyanide, Free ## (mg/L)	Cyanide, Total ** (mg/L)		
		AWQS: 5	AWQS: 5	AWQS: 200	AWQS: 7	AWQS: NE	AWQS: 70	AWQS: 2	AWQS: NE	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 5	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 700	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 1,000	AWQS: NE	AWQS: NE	AWQS: 10,000	AWQS: 10,000	AWQS: 0.2	AWQS: NE		
MW-102A	5/18/2006	54	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<20	1.3	9.2	
	10/10/2006	35	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<20	1.2	5.7	
	12/12/2006	31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	5.6		
	2/21/2007	33	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<20	2.5 D2	7.0 D2	
	5/15/2007	34	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<20	3.2	5.8 D2	
	8/8/2007	34	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<20	1.2	3.6 D2
	11/21/2007	29	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<20	0.79	2.4 D2	
	2/25/2008	12	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	2.2	2.4	<0.50	1.6	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	<20	<20	1.2 D1	3.6 D1
	5/22/2008	14	0.91	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	3.6	4.7	1.1	2.4	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	<20	<20	0.21
8/12/2008	17	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	1.3	1.2	<0.50	1.5	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	<20	<20	6.0	6.0 D2
PZ-2A	8/11/2008	30	11	<0.50	5.5	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	2.8	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	0.036	0.036	
DMW-6	2/24/2006	<0.50	<0.50	<0.50	<1.0	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010		
	5/17/2006	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010		
	10/3/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080		
	11/29/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080		
	2/19/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.1	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080		
	5/14/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080		
	8/1/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	0.83	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010		
	11/14/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	0.68	0.56	<1.0	1.2	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010		
	2/19/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.95	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02		
	5/13/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	0.70	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02		
8/4/2008	<0.50	<0.50	<0.50	<1.0	<0.																												

TABLE 5
SUMMARY OF SELECTED VOCs (µg/L) AND CYANIDES (mg/L) HISTORICALLY DETECTED IN GROUNDWATER SINCE 2001
20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)	BCM (µg/L)	BDCM (µg/L)	DBCM (µg/L)	Bromoform (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	MTBE (µg/L)	2-Butanone (µg/L)	n-Butyl benzene (µg/L)	sec-Butyl benzene (µg/L)	CD (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	4-Isopropyl toluene (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	Toluene (µg/L)	1,2,4- Trimethyl benzene (µg/L)	1,3,5- Trimethyl benzene (µg/L)	Xylenes Total (µg/L)	Acetone (µg/L)	Cyanide, Free ## (mg/L)	Cyanide, Total ** (mg/L)		
		AWQS: 5	AWQS: 5	AWQS: 200	AWQS: 7	AWQS: NE	AWQS: 70	AWQS: 2	AWQS: NE	AWQS: 100*	AWQS: 100*	AWQS: 100*	AWQS: 100*	AWQS: 5	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 700	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 1,000	AWQS: NE	AWQS: NE	AWQS: 10,000	AWQS: 10,000	AWQS: 0.2	AWQS: NE		
DEW-19	11/14/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010		
	2/19/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02		
	5/13/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02		
	8/4/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02		
B-Zone Groundwater Monitoring Wells																																	
MW-8B	12/5/2006	910 D2	290 D2	<1.0	140 D2	3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.3	<1.0	4.3	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	5.2	<1.0	<1.0	<3.0	<20	NA	5.8		
	2/26/2007	1,000 D2	320 D2	<10	140 D2	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<30	<200	0.21	3.3		
	5/21/2007	950 D2	350 D2	<10	19	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<30	<200	1.7 D2	2.2 D2		
	8/6/2007	1,200 D2	320 D2	<0.50	28	2.7	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	7.5	1.2	9.1	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.864	1.5 D2		
	11/16/2007	870 D2	260 D2	<0.50	110	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	6.5	1.1	6.4	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.096	1.2 D2		
	2/26/2008	750 D2	220 D2	<5.0	26 D2	<5.0	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<10	<100	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<50	0.88 D2	1.5 D2		
	5/20/2008	570 D2	140 D2	<5.0	23 D2	<5.0	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<10	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<50	1.0	1.0 D2		
	8/29/2008	500 D2	130 D2	<5.0	42 D2	<5.0	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<10	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	0.79	0.79 D2		
	11/13/2008	330 D2	86 D2	<5.0	35 D2	<5.0	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<10	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	0.23	0.23 D2		
	4/28/2010	78	26	<0.50	11	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	4.4	<0.50	2.1	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	0.032	0.032	
MW-18B	12/5/2006	<1.0	31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	25	<1.0	<1.0	<3.0	<20	NA	<0.0080		
	2/26/2007	<1.0	29	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080		
	5/22/2007	1.5	45	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080		
	8/2/2007	0.67	34	<0.50	0.68	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010		
	11/16/2007	1.1	100	<0.50	1.6	<1.0	<0.50	<0.50	<0.50	0.73	0.53	<1.0	1.8	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	0.010		
	2/25/2008	8.9 D2	210 D2	<2.5	<5.0	<2.5	<5.0	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	<2.5	<5.0	<50	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<25	NA	<0.02		
	5/20/2008	<0.50	200 D2	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02		
	8/12/2008	2.6 D2	71 D2	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	NA	<0.02		
	5/20/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.1	4.6	<1.0	5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080		

<p align="center">TABLE 5</p> <p align="center">SUMMARY OF SELECTED VOCs (µg/L) AND CYANIDES (mg/L) HISTORICALLY DETECTED IN GROUNDWATER SINCE 2001</p> <p align="center">20th and Factor WQARF Site, Yuma, Arizona</p>	
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WELL	DATE	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)	BCM (µg/L)	BDCM (µg/L)	DBCM (µg/L)	Bromoform (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	MTBE (µg/L)	2-Butanone (µg/L)	n-Butyl benzene (µg/L)	sec-Butyl benzene (µg/L)	CD (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	4-Isopropyl toluene (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	Toluene (µg/L)	1,2,4- Trimethyl benzene (µg/L)	1,3,5- Trimethyl benzene (µg/L)	Xylenes Total (µg/L)	Acetone (µg/L)	Cyanide, Free ## (mg/L)	Cyanide, Total ** (mg/L)	
		AWQS: 5	AWQS: 5	AWQS: 200	AWQS: 7	AWQS: NE	AWQS: 70	AWQS: 2	AWQS: NE	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 100+	AWQS: 5	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 700	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 1,000	AWQS: NE	AWQS: NE	AWQS: 10,000	AWQS: 10,000	AWQS: 0.2	AWQS: NE		
MW-102B2	1/30/2002	220	0.59	6.1	1.4	5.3	<0.50	<0.50	<0.50	5	4.3	<1.0	5.9	2.3	<1.0	<5.0	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	6	<0.50	<0.50	<0.50	<0.50	<1.0	<10	0.104	<0.01	
	6/8/2004	71	1.6	<0.50	0.65	3.8	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	3.0	3.4	2.2	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
	1/23/2004	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	0.053	
	6/1/2005	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	10	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/21/2006	41	1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	2.0	<0.50	<2.0	<5.0	<2.5	<1.5	0.80	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	5/26/2006	36	0.89	<0.5	<1.0	<0.5	<0.5	<1.0	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<2.0	<5.0	<2.5	<1.5	0.84	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	10/12/2006	4.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.3	5	1.4	5.9	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	12/7/2006	2.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	1.2	<1.0	2.6	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	<0.0080	
	2/23/2007	11 D1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<15.0	<100	<0.0080	0.0085	
	5/24/2007	13 D1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<15.0	<100	<0.025	<0.025	
	8/7/2007	7.3	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	5.3	4.0	<1.0	7.7	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
	11/21/2007	10	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	2.0	0.59	0.50	<1.0	6.4	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/28/2008	9.3	0.70	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	4.6	5.3	1.0	4.5	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	5/21/2008	10	1.40	<0.50	<1.0	<0.50	<1.0	<0.50	0.66	3.4	4.4	1.0	3.6	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	8/12/2008	2.9	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	2.3	1.8	<0.50	2.7	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02
	MW-103B	11/24/2004	0.52	<0.50	<0.5	<1.0	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010
		6/1/2005	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	0.59	<0.50	<0.50	<0.50	<1.0	4.5	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010
2/21/2006		1.1	<0.50	<0.50	<0.50	<1.0	<0.50	0.57	0.64	<0.50	<0.50	<1.0	2.2	<0.50	<2.0	<5.0	<2.5	<1.5	0.59	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
5/25/2006		1.3	<0.50	<0.50	<0.50	<1.0	<0.50	0.61	0.5	<0.50	<0.50	<1.0	1.5	<0.50	<2.0	<5.0	<2.5	<1.5	0.66	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	21	<0.010	0.015	
10/12/2006		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	4.3	1.3	2.8	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
12/7/2006		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0	5.7	1.8	4.2	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	<0.0080	
2/23/2007		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
5/22/2007		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
8/7/2007		<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	4.9	3.8	<1.0	5.5	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
11/20/2007		<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	0.73	1.9	1.9	<1.0	3.6	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
2/27/2008		20	5.2	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	1.1	1.1	<0.50	1.6	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
5/22/2008		10	1.7	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	4.3	5.7	1.3	3.0	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	8.6	0.18	0.18
8/12/2008		3.4	0.79	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	0.50	11	11	2.9	11	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
MW-104B	12/6/2004	<0.50	<0.50	<0.50	<1.0	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	6/2/2005	1.9	<0.50	<0.50	<1.0	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/22/2006	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	5/23/2006	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	10/11/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	12/8/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	<0.0080	
	2/27/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	5/21/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	<0.0080	<0.0080	
	8/8/2007	1.																														

TABLE 5
SUMMARY OF SELECTED VOCs (µg/L) AND CYANIDES (mg/L) HISTORICALLY DETECTED IN GROUNDWATER SINCE 2001
20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)	BCM (µg/L)	BDCM (µg/L)	DBCM (µg/L)	Bromoform (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	MTBE (µg/L)	2-Butanone (µg/L)	n-Butyl benzene (µg/L)	sec-Butyl benzene (µg/L)	CD (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	4-Isopropyl toluene (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	Toluene (µg/L)	1,2,4- Trimethyl benzene (µg/L)	1,3,5- Trimethyl benzene (µg/L)	Xylenes Total (µg/L)	Acetone (µg/L)	Cyanide, Free ## (mg/L)	Cyanide, Total ** (mg/L)	
		AWQS: 5	AWQS: 5	AWQS: 200	AWQS: 7	AWQS: NE	AWQS: 70	AWQS: 2	AWQS: NE	AWQS: 100*	AWQS: 100*	AWQS: 100*	AWQS: 100*	AWQS: 5	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 700	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 1,000	AWQS: NE	AWQS: NE	AWQS: 10,000	AWQS: 10,000	AWQS: 0.2	AWQS: NE	
MW-21C	6/12/2008	1.6	1.6	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	1.2	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02
	8/11/2008	1.5	0.54	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	3.2	3.0	0.99	4.0	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	9/19/2008	1.8	0.7	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	2.3	<0.50	3.5	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NS	<0.02	
	10/24/2008	1.4	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	4.3	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	11/14/2008	3.6	1.4	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	2.4	2.9	1.1	4.4	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	12/19/2008	1.9	1.6	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	2.3	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	01/26/2009	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<5.0	<0.50	<1.0	<0.50	<1.0	<5.0	<1.0	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	NA	<0.02	
4/28/2010	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	0.68	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02		
MW-103C	11/24/2004	2.9	<0.50	<0.50	<1.0	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	<0.010	
	6/1/2005	<0.50	<0.50	<0.50	<1.0	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/21/2006	1.8	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	0.071	
	5/25/2006	5.0	1.7	<0.5	<1.0	<0.5	<0.5	<1.0	<0.50	4.3	4.0	1.3	4.7	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	<0.010	0.023	
	10/12/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.5	3.0	<1.0	3.6	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<3.0	<20	0.0091	0.068	
	12/7/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	1.4	<1.0	3.5	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<20	NA	0.026		
	2/22/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<15.0	<100	0.002	0.0080	
	5/23/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.2 D1	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<15.0	<100	<0.025	<0.025	
	8/7/2007	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	3.6	2.9	<1.0	4.1	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	0.011	0.011	
	11/20/2007	0.56	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	1.5	1.1	0.98	<1.0	5.8	<0.50	<2.0	<5.0	<2.5	<1.5	<0.50	<2.0	<2.5	<1.5	<5.0	<2.0	<3.0	<2.0	<1.5	<3.0	<20	NA	<0.010	
	2/28/2008	5.8	0.98	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	4.3	5.1	0.95	3.5	<0.50	<1.0	<10	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	<0.02	<0.02	
	5/21/2008	6.3	2.5	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	2.4	2.3	0.61	2.4	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	8/12/2008	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<5.0	NA	<0.02	
	11/14/2008	<2.5	<2.5	<2.5	<5.0	<2.5	<5.0	<2.5	<2.5	5.3 D1	5.5 D1	<2.5	7.1 D1	<2.5	<5.0	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.0	<25	NA	<0.02	
	4/29/2010	3.1	1.0	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	7.1	7.4	2.0	6.7	<0.50	<1.0	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50										

TABLE 5
SUMMARY OF SELECTED VOCs (µg/L) AND CYANIDES (mg/L) HISTORICALLY DETECTED IN GROUNDWATER SINCE 2001
20th and Factor WQARF Site, Yuma, Arizona

WELL	DATE	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)	BCM (µg/L)	BDCM (µg/L)	DBCM (µg/L)	Bromoform (µg/L)	Chloroform (µg/L)	Benzene (µg/L)	MTBE (µg/L)	2-Butanone (µg/L)	n-Butyl benzene (µg/L)	sec-Butyl benzene (µg/L)	CD (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	4-Isopropyl toluene (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	Toluene (µg/L)	1,2,4- Trimethyl benzene (µg/L)	1,3,5- Trimethyl benzene (µg/L)	Xylenes Total (µg/L)	Acetone (µg/L)	Cyanide, Free ## (mg/L)	Cyanide, Total ** (mg/L)
		AWQS: 5	AWQS: 5	AWQS: 200	AWQS: 7	AWQS: NE	AWQS: 70	AWQS: 2	AWQS: NE	AWQS: 100*	AWQS: 100*	AWQS: 100*	AWQS: 100*	AWQS: 5	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 700	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: NE	AWQS: 1,000	AWQS: NE	AWQS: NE	AWQS: 10,000	AWQS: 10,000	AWQS: 0.2	AWQS: NE

NOTES:

BCM = Bromochloromethane
BDCM = Bromodichloromethane
CD = Carbon disulfide
DBCM = Dibromochloromethane

1,1-DCA = 1,1-Dichloroethane
cis-1,2-DCE = cis-1,2-Dichloroethene
1,1-DCE = 1,1-Dichloroethene
MTBE = Methyl tert-butyl ether

PCE = Tetrachloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
TCE = Trichloroethene
VC = Vinyl chloride

AWQS = Aquifer Water Quality Standard (Arizona)
µg/L = Micrograms per Liter
mg/L = Milligrams per Liter
D1 = Sample required dilution due to matrix.
D2 = Sample required dilution due to high concentration of target analyte.
NE = Not Established
NA = Not Analyzed

15 Concentrations at or above the AQWS

0.2 Detected concentration below the AWQS

♦ Total trihalomethanes

Cyanide amenable to chlorination

** Concentrations compared to AWQS for free cyanide for potential risk

<0.50 = Concentration not detected at or above laboratory detection limits.

VOCs analyzed by EPA Method 8260B
Free(Amenable) Cyanide analyzed by Standard Method 4500 CN
Total Cyanide analyzed by Standard Method 4500 CN

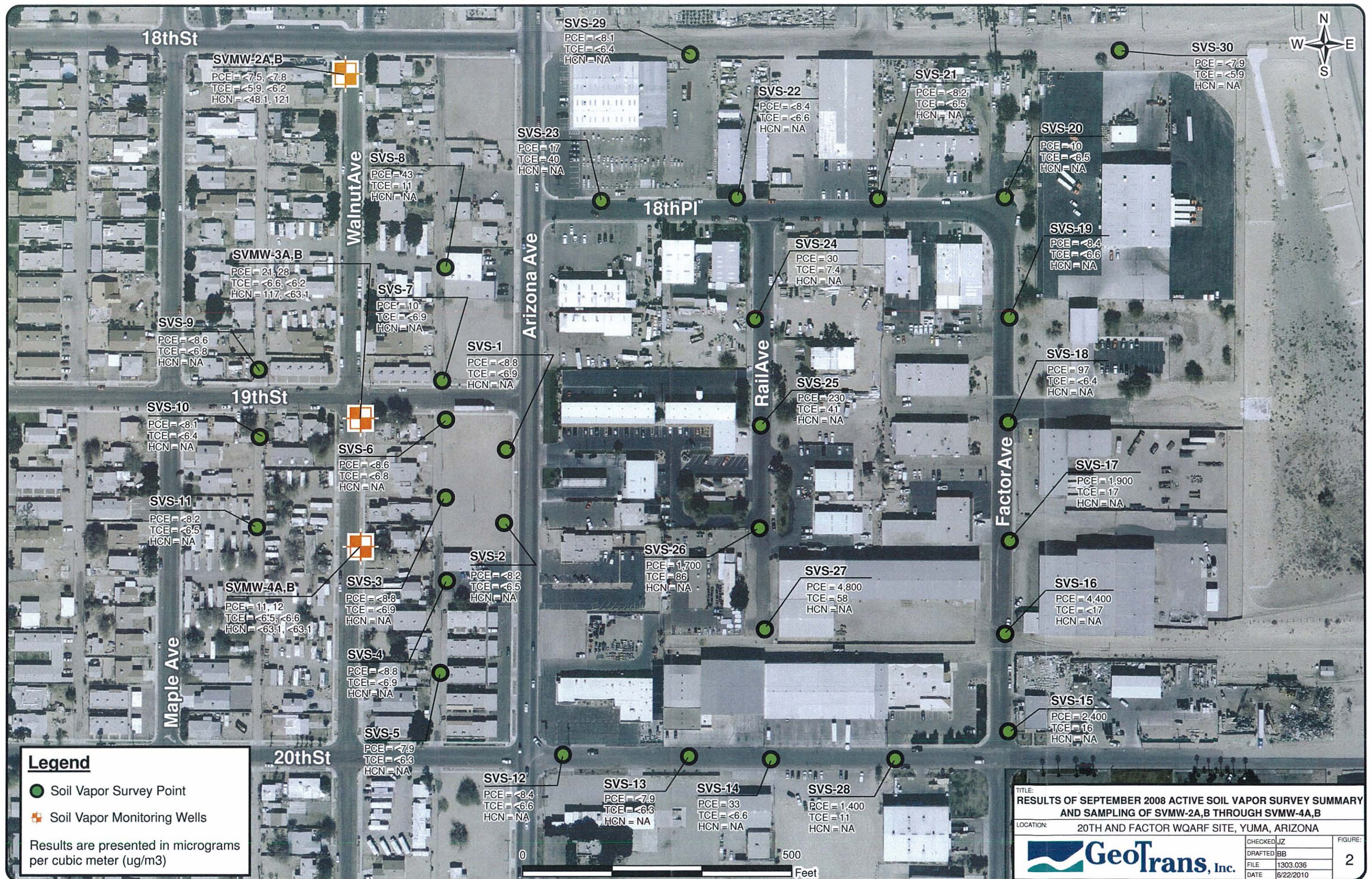
1303.036
Sept. 2008 - April 2010 Well Installation and Sampling Report

Page 9 of 9

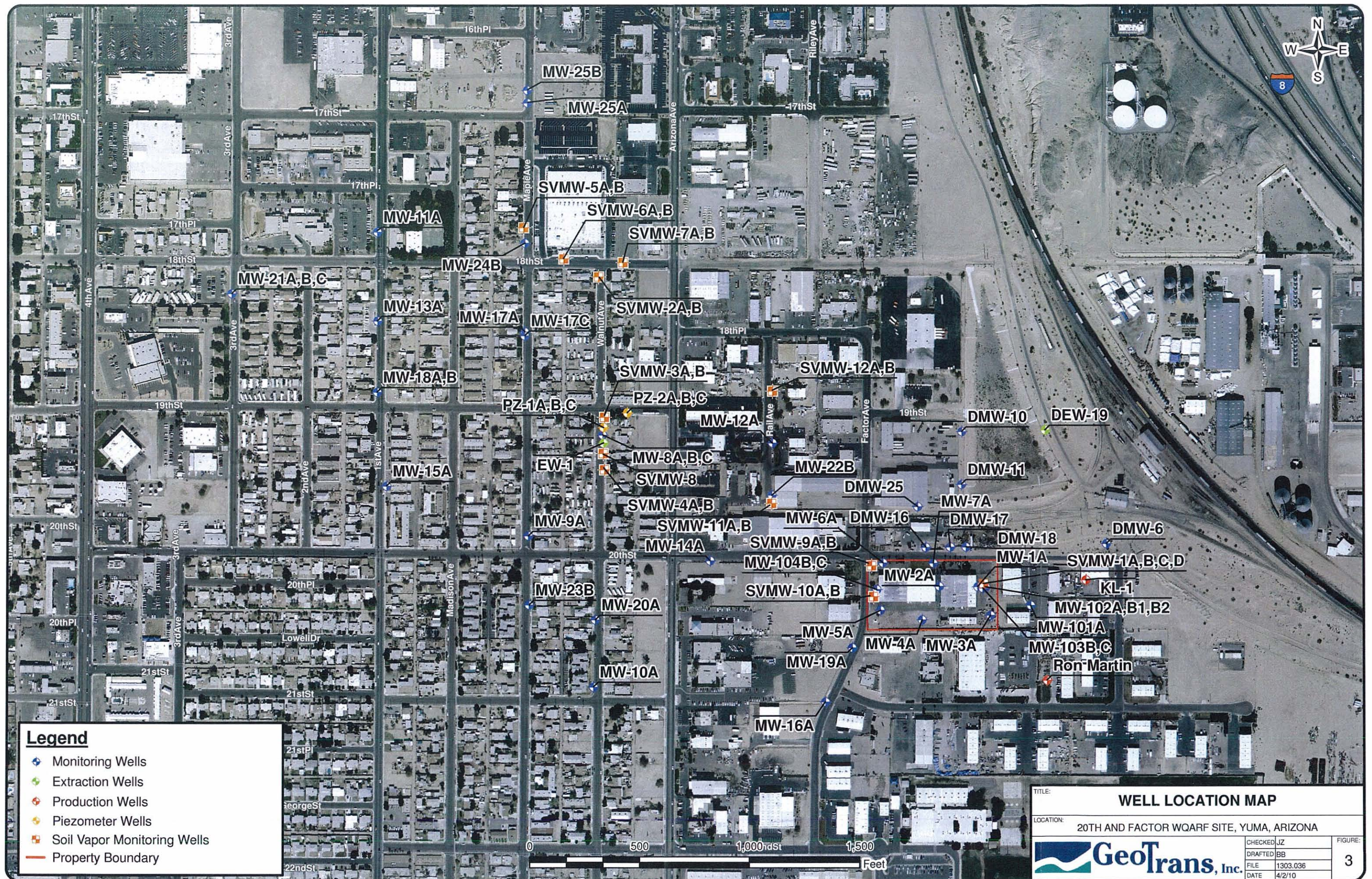
GeoTrans, Inc.
TFDEQP000224

FIGURES

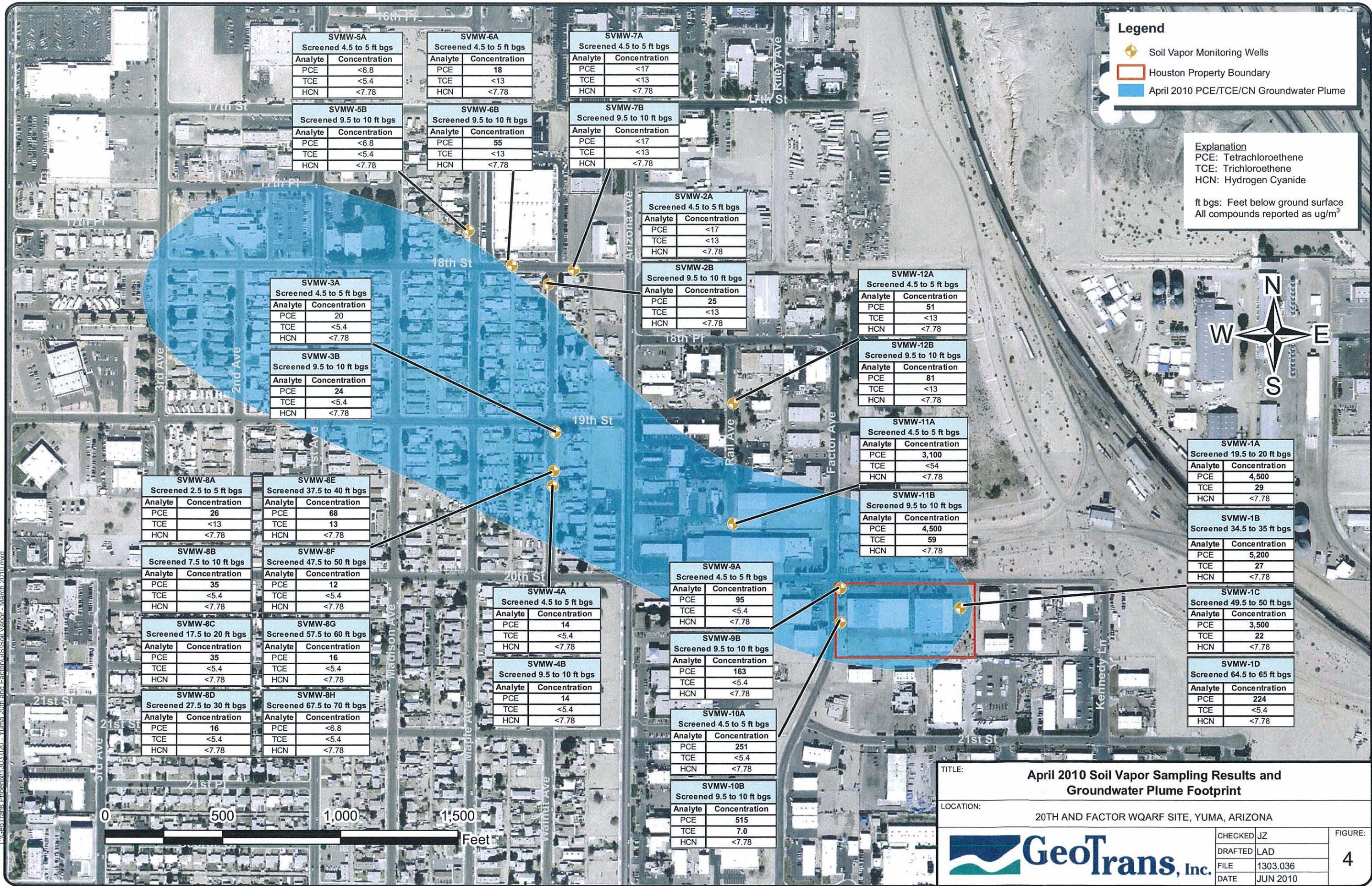




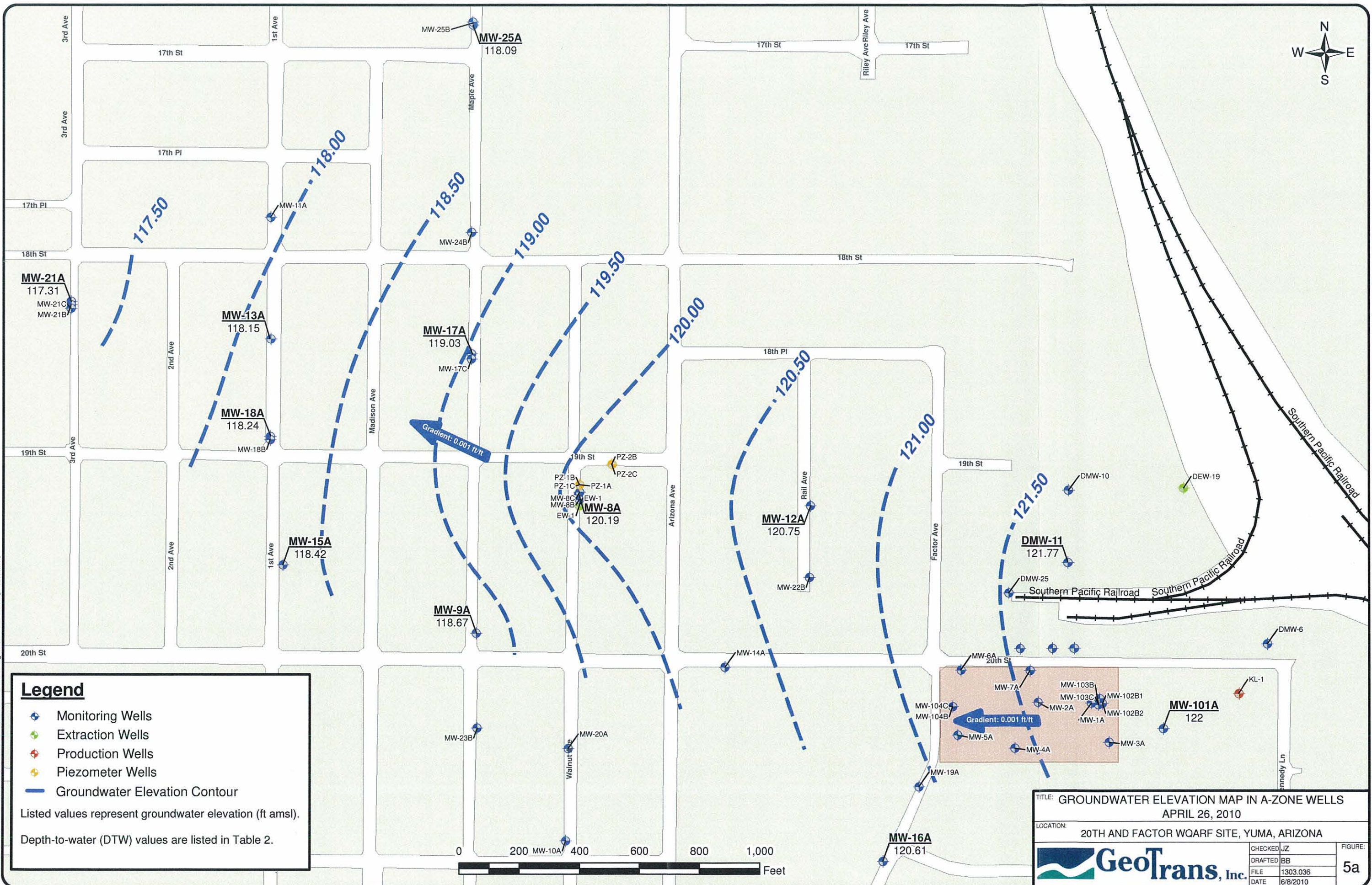
TITLE: RESULTS OF SEPTEMBER 2008 ACTIVE SOIL VAPOR SURVEY SUMMARY AND SAMPLING OF SVMW-2A,B THROUGH SVMW-4A,B			
LOCATION: 20TH AND FACTOR WQARF SITE, YUMA, ARIZONA			
CHECKED: JZ		FIGURE: 2	
DRAFTED: BB			
FILE: 1303.036			
DATE: 6/22/2010			



Monday, May 17, 2010 2:12:59 PM
T:\GeoTrans\Phoenix\1303.030 - Yuma 20th and Factor\GIS\Soil Vapor - March 2010.mxd



P:\GeoTrans Phoenix\Bases\Yuma 20th & Factor\GIS\2008\AUG 2008\Fig 3a GW Elevations Map 200808.mxd



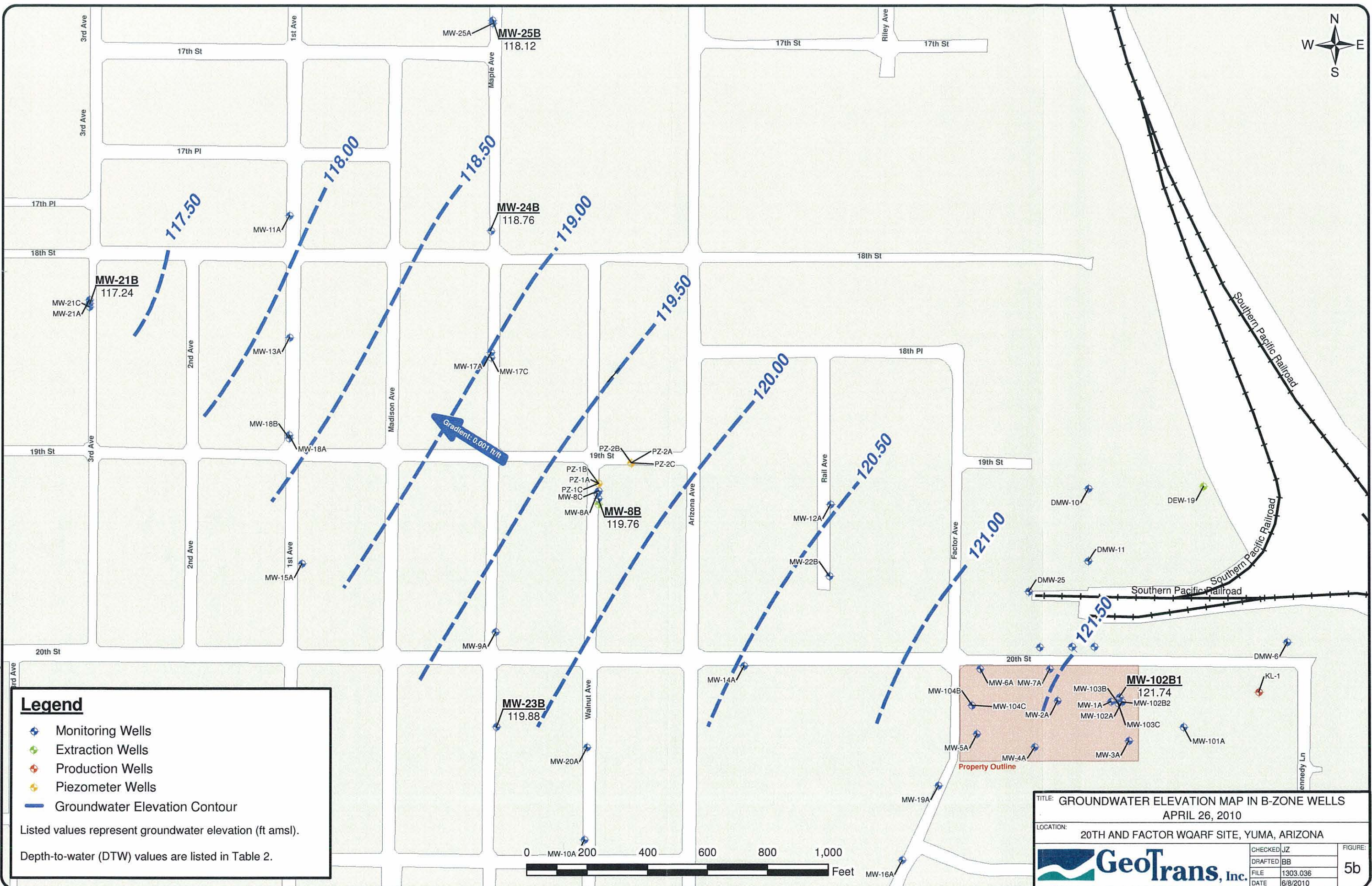
TITLE: GROUNDWATER ELEVATION MAP IN A-ZONE WELLS
APRIL 26, 2010

LOCATION: 20TH AND FACTOR WQARF SITE, YUMA, ARIZONA

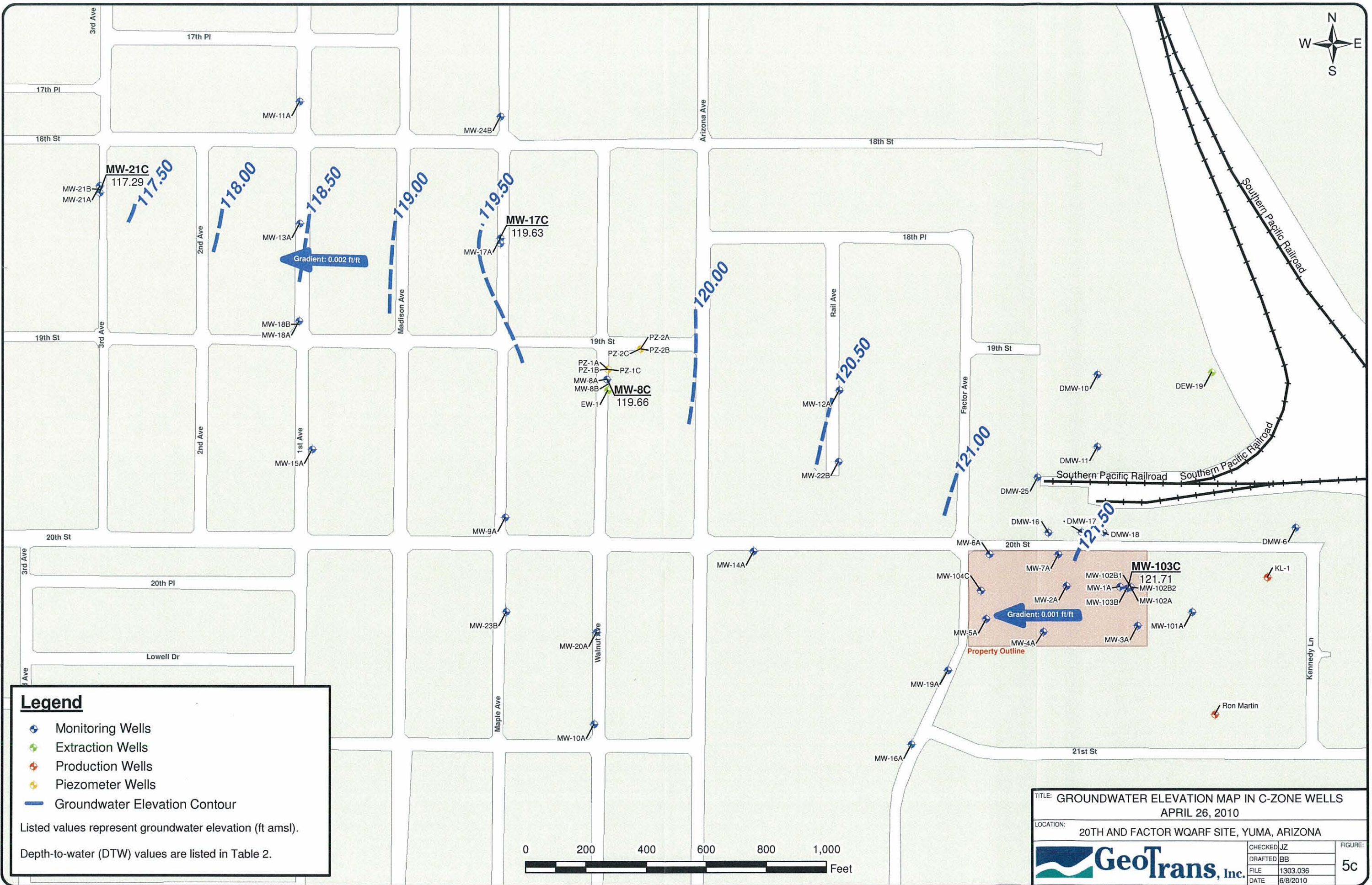
GeoTrans, Inc.

CHECKED: JZ	FIGURE:
DRAFTED: BB	5a
FILE: 1303.036	
DATE: 6/8/2010	

P:\GeoTrans Phoenix\Bases\Yuma 20th & Factor\GIS\2008\AUG 2008\Fig 3b GW Elevations Map 200808.mxd



P:\GeoTrans Phoenix\Databases\Yuma 20th & Factor\GIS\2008AUG 2008\Fig.3b GW Elevations Map 200808.mxd



TITLE: GROUNDWATER ELEVATION MAP IN C-ZONE WELLS APRIL 26, 2010		
LOCATION: 20TH AND FACTOR WQARF SITE, YUMA, ARIZONA		
		FIGURE: 5c
CHECKED: JZ	DRAFTED: BB	FILE: 1303.036
DATE: 6/8/2010		

APPENDIX A

Soil Vapor Analytical Laboratory Reports



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client:	Jasenska Zbozinek	Work Order #:	1003104
Company:	Geotrans, Inc	Project Name:	20 th & Factor
Address:	4801 E. Washington St., Suite 260	Project Number:	1303.036
	Phoenix, AZ 85034	Received Date:	03/12/10

Dear Client:

Airtech Environmental Laboratories received thirty two (32) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi

ADHS License No. AZ0740



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Jasenka Zbozinek
Company: Geotrans, Inc
Address: 4801 E. Washington St., Suite 260
Phoenix, AZ 85034

Work Order #: 1003104
Project Name: 20th & Factor
Project Number: 1303.036
Received Date: 03/12/10

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLED DATE	SAMPLED TIME
1003104-01	HI-SVMW2A-030810	TO-15 Full List	3/8/2010	1149
1003104-02	HI-SVMW2B-030810	TO-15 Full List	3/8/2010	1150
1003104-03	HI-SVMW6A-030810	TO-15 Full List	3/8/2010	1518
1003104-04	HI-SVMW6B-030810	TO-15 Full List	3/8/2010	1518
1003104-05	HI-SVMW7B-030810	TO-15 Full List	3/8/2010	1838
1003104-06	HI-SVMW7A-030810	TO-15 Full List	3/8/2010	1838
1003104-07	HI-SVMW5A-030910	TO-15 Full List	3/9/2010	0721
1003104-08	HI-SVMW5B-030910	TO-15 Full List	3/9/2010	0721
1003104-09	HI-SVMW3A-030910	TO-15 Full List	3/9/2010	1045
1003104-10	HI-SVMW3B-030910	TO-15 Full List	3/9/2010	1045
1003104-11	HI-SVMW12A-030910	TO-15 Full List	3/9/2010	1415
1003104-12	HI-SVMW12B-030910	TO-15 Full List	3/9/2010	1415
1003104-13	HI-SVMW11A-030910	TO-15 Full List	3/9/2010	1751
1003104-14	HI-SVMW11B-030910	TO-15 Full List	3/9/2010	1751
1003104-15	HI-SVMW4A-031010	TO-15 Full List	3/10/2010	0717
1003104-16	HI-SVMW4B-031010	TO-15 Full List	3/10/2010	0717
1003104-17	HI-SVMW8-5-031010	TO-15 Full List	3/10/2010	1014
1003104-18	HI-SVMW8-10-031010	TO-15 Full List	3/10/2010	1014
1003104-19	HI-SVMW8-20-031010	TO-15 Full List	3/10/2010	1407
1003104-20	HI-SVMW8-30-031010	TO-15 Full List	3/10/2010	1407
1003104-21	HI-SVMW8-40-031010	TO-15 Full List	3/10/2010	1600
1003104-22	HI-SVMW8-50-031010	TO-15 Full List	3/10/2010	1600
1003104-23	HI-SVMW8-60-031110	TO-15 Full List	3/11/2010	0735
1003104-24	HI-SVMW8-70-031110	TO-15 Full List	3/11/2010	0735
1003104-25	HI-SVMW1-20-031110	TO-15 Full List	3/11/2010	1100
1003104-26	HI-SVMW1-35-031110	TO-15 Full List	3/11/2010	1100
1003104-27	HI-SVMW1-50-031110	TO-15 Full List	3/11/2010	1400



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client:	Jasenka Zbozinnek	Work Order #:	1003104
Company:	Geotrans, Inc	Project Name:	20th & Factor
Address:	4801 E. Washington St., Suite 260	Project Number:	1303.036
	Phoenix, AZ 85034	Received Date:	03/12/10

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLED DATE	SAMPLED TIME
1003104-28	HI-SVMW1-65-031110	TO-15 Full List	3/11/2010	1400
1003104-29	HI-SVMW10A-031110	TO-15 Full List	3/11/2010	1720
1003104-30	HI-SVMW10B-031110	TO-15 Full List	3/11/2010	1720
1003104-31	HI-SVMW9A-031210	TO-15 Full List	3/12/2010	0744
1003104-32	HI-SVMW9B-031210	TO-15 Full List	3/12/2010	0744



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client:	Jasenska Zbozinek	Work Order #:	1003104
Company:	Geotrans, Inc	Project Name:	20th & Factor
Address:	4801 E. Washington St., Suite 260	Project Number:	1303.04
	Phoenix, AZ 85034	Received Date:	03/12/10

Case Narrative

All samples and QC associated with your samples met the quality control objectives. Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

Due to high concentrations of non-target compounds AEL was not able to analyze this workorder at a 1X dilution. The non-target compounds present at the highest concentrations were Thiirane (Ethylene Sulfide), Pentamethylheptane and Methylethylbenze , respectively.

D1: Sample required dilution due to matrix effects.
D2 : Sample required dilution due to high concentration of target analyte.



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 01

Client Sample ID: HI-SVMW2A-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M³		Qual	DF	Date Analyzed	Analyst:	JJ
	Result	Limit	Result	Limit					
VOLATILE ORGANICS IN AIR	TO-15								
1,1,1-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010		
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17	17		5	3/15/2010		
1,1,2-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010		
1,1-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010		
1,1-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010		
1,2,4-Trichlorobenzene	< 10	10	< 74	74		5	3/15/2010		
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/15/2010		
1,2-Dibromoethane	< 2.5	2.5	< 19	19		5	3/15/2010		
1,2-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010		
1,2-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010		
1,2-Dichloropropane	< 2.5	2.5	< 12	12		5	3/15/2010		
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/15/2010		
1,3-Butadiene	< 2.5	2.5	< 5.5	5.5		5	3/15/2010		
1,3-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010		
1,4-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010		
1,4-Dioxane	< 10	10	< 36	36		5	3/15/2010		
2,2,4-Trimethylpentane	< 2.5	2.5	< 12	12		5	3/15/2010		
2-Butanone (MEK)	< 5.0	5.0	< 15	15		5	3/15/2010		
2-Hexanone	< 5.0	5.0	< 21	21		5	3/15/2010		
2-Propanol (IPA)	< 10	10	< 25	25		5	3/15/2010		
4-Ethyltoluene	< 2.5	2.5	< 12	12		5	3/15/2010		
4-Methyl-2-pentanone (MIBK)	< 5.0	5.0	< 21	21		5	3/15/2010		
Acetone	< 25	25	< 60	60		5	3/15/2010		
Allyl chloride	< 2.5	2.5	< 7.8	7.8		5	3/15/2010		
Benzene	2.7	2.5	8.6	8.0	D1	5	3/15/2010		
Benzyl chloride	< 10	10	< 52	52		5	3/15/2010		
Bromodichloromethane	< 2.5	2.5	< 17	17		5	3/15/2010		
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 11	11		5	3/15/2010		
Bromoform	< 2.5	2.5	< 26	26		5	3/15/2010		
Bromomethane	< 2.5	2.5	< 9.7	9.7		5	3/15/2010		
Carbon disulfide	< 2.5	2.5	< 7.8	7.8		5	3/15/2010		
Carbon tetrachloride	< 2.5	2.5	< 16	16		5	3/15/2010		
Chlorobenzene	< 2.5	2.5	< 12	12		5	3/15/2010		
Chloroethane	< 2.5	2.5	< 6.6	6.6		5	3/15/2010		
Chloroform	3.4	2.5	17	12	D1	5	3/15/2010		
Chloromethane	< 5.0	5.0	< 10	10		5	3/15/2010		
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010		
cis-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010		
Cyclohexane	< 2.5	2.5	< 8.6	8.6		5	3/15/2010		
Dibromochloromethane	< 2.5	2.5	< 21	21		5	3/15/2010		



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 01

Client Sample ID: HI-SVMW2A-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25		5	3/15/2010
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17	17		5	3/15/2010
Ethyl Acetate	< 2.5	2.5	< 9.0	9.0		5	3/15/2010
Ethylbenzene	< 2.5	2.5	< 11	11		5	3/15/2010
Heptane	< 2.5	2.5	< 10	10		5	3/15/2010
Hexachlorobutadiene	< 5.0	5.0	< 53	53		5	3/15/2010
Hexane	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
m&p-Xylene	5.2	5.0	23	22	D1	5	3/15/2010
Methyl tert-butyl ether	< 5.0	5.0	< 18	18		5	3/15/2010
Methylene chloride	< 2.5	2.5	< 8.7	8.7		5	3/15/2010
o-Xylene	< 2.5	2.5	< 11	11		5	3/15/2010
Propene (Propylene)	< 2.5	2.5	< 4.3	4.3		5	3/15/2010
Styrene	< 2.5	2.5	< 11	11		5	3/15/2010
Tetrachloroethene	< 2.5	2.5	< 17	17		5	3/15/2010
Tetrahydrofuran	< 10	10	< 30	30		5	3/15/2010
Toluene	15	2.5	57	9.4	D1	5	3/15/2010
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010
trans-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010
Trichloroethene	< 2.5	2.5	< 13	13		5	3/15/2010
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14	14		5	3/15/2010
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19	19		5	3/15/2010
Vinyl acetate	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
Vinyl chloride	< 2.5	2.5	< 6.4	6.4		5	3/15/2010
Surr: 4-Bromofluorobenzene	117	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 02

Client Sample ID: HI-SVMW2B-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: SoilVapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed	
	Result	Limit	Result	Limit				
VOLATILE ORGANICS IN AIR	TO-15						Analyst:	JJ
1,1,1-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010	
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17	17		5	3/15/2010	
1,1,2-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010	
1,1-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010	
1,1-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010	
1,2,4-Trichlorobenzene	< 10	10	< 74	74		5	3/15/2010	
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/15/2010	
1,2-Dibromoethane	< 2.5	2.5	< 19	19		5	3/15/2010	
1,2-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010	
1,2-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010	
1,2-Dichloropropane	< 2.5	2.5	< 12	12		5	3/15/2010	
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/15/2010	
1,3-Butadiene	< 2.5	2.5	< 5.5	5.5		5	3/15/2010	
1,3-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010	
1,4-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010	
1,4-Dioxane	< 10	10	< 36	36		5	3/15/2010	
2,2,4-Trimethylpentane	< 2.5	2.5	< 12	12		5	3/15/2010	
2-Butanone (MEK)	< 5.0	5.0	< 15	15		5	3/15/2010	
2-Hexanone	< 5.0	5.0	< 21	21		5	3/15/2010	
2-Propanol (IPA)	< 10	10	< 25	25		5	3/15/2010	
4-Ethyltoluene	< 2.5	2.5	< 12	12		5	3/15/2010	
4-Methyl-2-pentanone (MIBK)	< 5.0	5.0	< 21	21		5	3/15/2010	
Acetone	< 25	25	< 60	60		5	3/15/2010	
Allyl chloride	< 2.5	2.5	< 7.8	7.8		5	3/15/2010	
Benzene	< 2.5	2.5	< 8.0	8.0		5	3/15/2010	
Benzyl chloride	< 10	10	< 52	52		5	3/15/2010	
Bromodichloromethane	< 2.5	2.5	< 17	17		5	3/15/2010	
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 11	11		5	3/15/2010	
Bromoform	< 2.5	2.5	< 26	26		5	3/15/2010	
Bromomethane	< 2.5	2.5	< 9.7	9.7		5	3/15/2010	
Carbon disulfide	6.7	2.5	21	7.8	D1	5	3/15/2010	
Carbon tetrachloride	< 2.5	2.5	< 16	16		5	3/15/2010	
Chlorobenzene	< 2.5	2.5	< 12	12		5	3/15/2010	
Chloroethane	< 2.5	2.5	< 6.6	6.6		5	3/15/2010	
Chloroform	4.1	2.5	20	12	D1	5	3/15/2010	
Chloromethane	11	5.0	23	10	D1	5	3/15/2010	
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010	
cis-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010	
Cyclohexane	< 2.5	2.5	< 8.6	8.6		5	3/15/2010	
Dibromochloromethane	< 2.5	2.5	< 21	21		5	3/15/2010	



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 02

Client Sample ID: HI-SVMW2B-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25		5	3/15/2010
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17	17		5	3/15/2010
Ethyl Acetate	< 2.5	2.5	< 9.0	9.0		5	3/15/2010
Ethylbenzene	< 2.5	2.5	< 11	11		5	3/15/2010
Heptane	< 2.5	2.5	< 10	10		5	3/15/2010
Hexachlorobutadiene	< 5.0	5.0	< 53	53		5	3/15/2010
Hexane	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
m&p-Xylene	< 5.0	5.0	< 22	22		5	3/15/2010
Methyl tert-butyl ether	< 5.0	5.0	< 18	18		5	3/15/2010
Methylene chloride	< 2.5	2.5	< 8.7	8.7		5	3/15/2010
o-Xylene	< 2.5	2.5	< 11	11		5	3/15/2010
Propene (Propylene)	< 2.5	2.5	< 4.3	4.3		5	3/15/2010
Styrene	< 2.5	2.5	< 11	11		5	3/15/2010
Tetrachloroethene	3.7	2.5	25	17	D1	5	3/15/2010
Tetrahydrofuran	< 10	10	< 30	30		5	3/15/2010
Toluene	9.0	2.5	34	9.4	D1	5	3/15/2010
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010
trans-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010
Trichloroethene	< 2.5	2.5	< 13	13		5	3/15/2010
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14	14		5	3/15/2010
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19	19		5	3/15/2010
Vinyl acetate	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
Vinyl chloride	< 2.5	2.5	< 6.4	6.4		5	3/15/2010
Surr: 4-Bromofluorobenzene	115	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 03

Client Sample ID: HI-SVMW6A-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M³		Qual	DF	Date Analyzed	Analyst:	JJ
	Result	Limit	Result	Limit					
VOLATILE ORGANICS IN AIR	TO-15								
1,1,1-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010		
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17	17		5	3/15/2010		
1,1,2-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010		
1,1-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010		
1,1-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010		
1,2,4-Trichlorobenzene	< 10	10	< 74	74		5	3/15/2010		
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/15/2010		
1,2-Dibromoethane	< 2.5	2.5	< 19	19		5	3/15/2010		
1,2-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010		
1,2-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010		
1,2-Dichloropropane	< 2.5	2.5	< 12	12		5	3/15/2010		
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/15/2010		
1,3-Butadiene	< 2.5	2.5	< 5.5	5.5		5	3/15/2010		
1,3-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010		
1,4-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010		
1,4-Dioxane	< 10	10	< 36	36		5	3/15/2010		
2,2,4-Trimethylpentane	< 2.5	2.5	< 12	12		5	3/15/2010		
2-Butanone (MEK)	< 5.0	5.0	< 15	15		5	3/15/2010		
2-Hexanone	< 5.0	5.0	< 21	21		5	3/15/2010		
2-Propanol (IPA)	< 10	10	< 25	25		5	3/15/2010		
4-Ethyltoluene	< 2.5	2.5	< 12	12		5	3/15/2010		
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 21	21		5	3/15/2010		
Acetone	< 25	25	< 60	60		5	3/15/2010		
Allyl chloride	< 2.5	2.5	< 7.8	7.8		5	3/15/2010		
Benzene	< 2.5	2.5	< 8.0	8.0		5	3/15/2010		
Benzyl chloride	< 10	10	< 52	52		5	3/15/2010		
Bromodichloromethane	< 2.5	2.5	< 17	17		5	3/15/2010		
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 11	11		5	3/15/2010		
Bromoform	< 2.5	2.5	< 26	26		5	3/15/2010		
Bromomethane	< 2.5	2.5	< 9.7	9.7		5	3/15/2010		
Carbon disulfide	< 2.5	2.5	< 7.8	7.8		5	3/15/2010		
Carbon tetrachloride	< 2.5	2.5	< 16	16		5	3/15/2010		
Chlorobenzene	< 2.5	2.5	< 12	12		5	3/15/2010		
Chloroethane	< 2.5	2.5	< 6.6	6.6		5	3/15/2010		
Chloroform	< 2.5	2.5	< 12	12		5	3/15/2010		
Chloromethane	< 5.0	5.0	< 10	10		5	3/15/2010		
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010		
cis-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010		
Cyclohexane	< 2.5	2.5	< 8.6	8.6		5	3/15/2010		
Dibromochloromethane	< 2.5	2.5	< 21	21		5	3/15/2010		



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 03

Client Sample ID: HI-SVMW6A-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25		5	3/15/2010
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17	17		5	3/15/2010
Ethyl Acetate	< 2.5	2.5	< 9.0	9.0		5	3/15/2010
Ethylbenzene	< 2.5	2.5	< 11	11		5	3/15/2010
Heptane	< 2.5	2.5	< 10	10		5	3/15/2010
Hexachlorobutadiene	< 5.0	5.0	< 53	53		5	3/15/2010
Hexane	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
m&p-Xylene	< 5.0	5.0	< 22	22		5	3/15/2010
Methyl tert-butyl ether	< 5.0	5.0	< 18	18		5	3/15/2010
Methylene chloride	< 2.5	2.5	< 8.7	8.7		5	3/15/2010
o-Xylene	< 2.5	2.5	< 11	11		5	3/15/2010
Propene (Propylene)	< 2.5	2.5	< 4.3	4.3		5	3/15/2010
Styrene	< 2.5	2.5	< 11	11		5	3/15/2010
Tetrachloroethene	2.6	2.5	18	17	D1	5	3/15/2010
Tetrahydrofuran	< 10	10	< 30	30		5	3/15/2010
Toluene	6.3	2.5	24	9.4	D1	5	3/15/2010
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010
trans-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010
Trichloroethene	< 2.5	2.5	< 13	13		5	3/15/2010
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14	14		5	3/15/2010
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19	19		5	3/15/2010
Vinyl acetate	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
Vinyl chloride	< 2.5	2.5	< 6.4	6.4		5	3/15/2010
Surr: 4-Bromofluorobenzene	112	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 04

Client Sample ID: HI-SVMW6B-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17	17		5	3/15/2010
1,1,2-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010
1,1-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010
1,1-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010
1,2,4-Trichlorobenzene	< 10	10	< 74	74		5	3/15/2010
1,2,4-Trimethylbenzene	8.7	2.5	43	12	D1	5	3/15/2010
1,2-Dibromoethane	< 2.5	2.5	< 19	19		5	3/15/2010
1,2-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010
1,2-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010
1,2-Dichloropropane	< 2.5	2.5	< 12	12		5	3/15/2010
1,3,5-Trimethylbenzene	3.2	2.5	16	12	D1	5	3/15/2010
1,3-Butadiene	< 2.5	2.5	< 5.5	5.5		5	3/15/2010
1,3-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010
1,4-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010
1,4-Dioxane	< 10	10	< 36	36		5	3/15/2010
2,2,4-Trimethylpentane	< 2.5	2.5	< 12	12		5	3/15/2010
2-Butanone (MEK)	< 5.0	5.0	< 15	15		5	3/15/2010
2-Hexanone	< 5.0	5.0	< 21	21		5	3/15/2010
2-Propanol (IPA)	< 10	10	< 25	25		5	3/15/2010
4-Ethyltoluene	< 2.5	2.5	< 12	12		5	3/15/2010
4-Methyl-2-pentanone (MIBK)	< 5.0	5.0	< 21	21		5	3/15/2010
Acetone	< 25	25	< 60	60		5	3/15/2010
Allyl chloride	< 2.5	2.5	< 7.8	7.8		5	3/15/2010
Benzene	< 2.5	2.5	< 8.0	8.0		5	3/15/2010
Benzyl chloride	< 10	10	< 52	52		5	3/15/2010
Bromodichloromethane	< 2.5	2.5	< 17	17		5	3/15/2010
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 11	11		5	3/15/2010
Bromoform	< 2.5	2.5	< 26	26		5	3/15/2010
Bromomethane	< 2.5	2.5	< 9.7	9.7		5	3/15/2010
Carbon disulfide	4.3	2.5	13	7.8	D1	5	3/15/2010
Carbon tetrachloride	< 2.5	2.5	< 16	16		5	3/15/2010
Chlorobenzene	< 2.5	2.5	< 12	12		5	3/15/2010
Chloroethane	< 2.5	2.5	< 6.6	6.6		5	3/15/2010
Chloroform	< 2.5	2.5	< 12	12		5	3/15/2010
Chloromethane	< 5.0	5.0	< 10	10		5	3/15/2010
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010
cis-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010
Cyclohexane	< 2.5	2.5	< 8.6	8.6		5	3/15/2010
Dibromochloromethane	< 2.5	2.5	< 21	21		5	3/15/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 04

Client Sample ID: HI-SVMW6B-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25		5	3/15/2010
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17	17		5	3/15/2010
Ethyl Acetate	< 2.5	2.5	< 9.0	9.0		5	3/15/2010
Ethylbenzene	< 2.5	2.5	< 11	11		5	3/15/2010
Heptane	< 2.5	2.5	< 10	10		5	3/15/2010
Hexachlorobutadiene	< 5.0	5.0	< 53	53		5	3/15/2010
Hexane	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
m&p-Xylene	< 5.0	5.0	< 22	22		5	3/15/2010
Methyl tert-butyl ether	< 5.0	5.0	< 18	18		5	3/15/2010
Methylene chloride	< 2.5	2.5	< 8.7	8.7		5	3/15/2010
o-Xylene	< 2.5	2.5	< 11	11		5	3/15/2010
Propene (Propylene)	< 2.5	2.5	< 4.3	4.3		5	3/15/2010
Styrene	< 2.5	2.5	< 11	11		5	3/15/2010
Tetrachloroethene	8.1	2.5	55	17	D1	5	3/15/2010
Tetrahydrofuran	< 10	10	< 30	30		5	3/15/2010
Toluene	6.5	2.5	25	9.4	D1	5	3/15/2010
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010
trans-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010
Trichloroethene	< 2.5	2.5	< 13	13		5	3/15/2010
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14	14		5	3/15/2010
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19	19		5	3/15/2010
Vinyl acetate	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
Vinyl chloride	< 2.5	2.5	< 6.4	6.4		5	3/15/2010
Surr: 4-Bromofluorobenzene	114	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 05

Client Sample ID: HI-SVMW7B-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17	17		5	3/15/2010
1,1,2-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010
1,1-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010
1,1-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010
1,2,4-Trichlorobenzene	< 10	10	< 74	74		5	3/15/2010
1,2,4-Trimethylbenzene	6.7	2.5	33	12	D1	5	3/15/2010
1,2-Dibromoethane	< 2.5	2.5	< 19	19		5	3/15/2010
1,2-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010
1,2-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010
1,2-Dichloropropane	< 2.5	2.5	< 12	12		5	3/15/2010
1,3,5-Trimethylbenzene	6.4	2.5	31	12	D1	5	3/15/2010
1,3-Butadiene	< 2.5	2.5	< 5.5	5.5		5	3/15/2010
1,3-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010
1,4-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010
1,4-Dioxane	< 10	10	< 36	36		5	3/15/2010
2,2,4-Trimethylpentane	< 2.5	2.5	< 12	12		5	3/15/2010
2-Butanone (MEK)	< 5.0	5.0	< 15	15		5	3/15/2010
2-Hexanone	< 5.0	5.0	< 21	21		5	3/15/2010
2-Propanol (IPA)	< 10	10	< 25	25		5	3/15/2010
4-Ethyltoluene	2.7	2.5	13	12	D1	5	3/15/2010
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 21	21		5	3/15/2010
Acetone	< 25	25	< 60	60		5	3/15/2010
Allyl chloride	< 2.5	2.5	< 7.8	7.8		5	3/15/2010
Benzene	< 2.5	2.5	< 8.0	8.0		5	3/15/2010
Benzyl chloride	< 10	10	< 52	52		5	3/15/2010
Bromodichloromethane	< 2.5	2.5	< 17	17		5	3/15/2010
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 11	11		5	3/15/2010
Bromoform	< 2.5	2.5	< 26	26		5	3/15/2010
Bromomethane	< 2.5	2.5	< 9.7	9.7		5	3/15/2010
Carbon disulfide	< 2.5	2.5	< 7.8	7.8		5	3/15/2010
Carbon tetrachloride	< 2.5	2.5	< 16	16		5	3/15/2010
Chlorobenzene	< 2.5	2.5	< 12	12		5	3/15/2010
Chloroethane	< 2.5	2.5	< 6.6	6.6		5	3/15/2010
Chloroform	11	2.5	54	12	D1	5	3/15/2010
Chloromethane	< 5.0	5.0	< 10	10		5	3/15/2010
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010
cis-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010
Cyclohexane	< 2.5	2.5	< 8.6	8.6		5	3/15/2010
Dibromochloromethane	< 2.5	2.5	< 21	21		5	3/15/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 05

Client Sample ID: HI-SVMW7B-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25		5	3/15/2010
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17	17		5	3/15/2010
Ethyl Acetate	< 2.5	2.5	< 9.0	9.0		5	3/15/2010
Ethylbenzene	< 2.5	2.5	< 11	11		5	3/15/2010
Heptane	2.6	2.5	11	10	D1	5	3/15/2010
Hexachlorobutadiene	< 5.0	5.0	< 53	53		5	3/15/2010
Hexane	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
m&p-Xylene	24	5.0	100	22	D1	5	3/15/2010
Methyl tert-butyl ether	< 5.0	5.0	< 18	18		5	3/15/2010
Methylene chloride	< 2.5	2.5	< 8.7	8.7		5	3/15/2010
o-Xylene	14	2.5	59	11	D1	5	3/15/2010
Propene (Propylene)	< 2.5	2.5	< 4.3	4.3		5	3/15/2010
Styrene	< 2.5	2.5	< 11	11		5	3/15/2010
Tetrachloroethene	< 2.5	2.5	< 17	17		5	3/15/2010
Tetrahydrofuran	< 10	10	< 30	30		5	3/15/2010
Toluene	12	2.5	45	9.4	D1	5	3/15/2010
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010
trans-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010
Trichloroethene	< 2.5	2.5	< 13	13		5	3/15/2010
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14	14		5	3/15/2010
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19	19		5	3/15/2010
Vinyl acetate	< 2.5	2.5	< 8.8	8.8		5	3/15/2010
Vinyl chloride	< 2.5	2.5	< 6.4	6.4		5	3/15/2010
Surr: 4-Bromofluorobenzene	111	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 06

Client Sample ID: HI-SVMW7A-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: SoilVapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed	
	Result	Limit	Result	Limit				
VOLATILE ORGANICS IN AIR	TO-15						Analyst:	JJ
1,1,1-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010	
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17	17		5	3/15/2010	
1,1,2-Trichloroethane	< 2.5	2.5	< 14	14		5	3/15/2010	
1,1-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010	
1,1-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010	
1,2,4-Trichlorobenzene	< 10	10	< 74	74		5	3/15/2010	
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/15/2010	
1,2-Dibromoethane	< 2.5	2.5	< 19	19		5	3/15/2010	
1,2-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010	
1,2-Dichloroethane	< 2.5	2.5	< 10	10		5	3/15/2010	
1,2-Dichloropropane	< 2.5	2.5	< 12	12		5	3/15/2010	
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/15/2010	
1,3-Butadiene	< 2.5	2.5	< 5.5	5.5		5	3/15/2010	
1,3-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010	
1,4-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/15/2010	
1,4-Dioxane	< 10	10	< 36	36		5	3/15/2010	
2,2,4-Trimethylpentane	< 2.5	2.5	< 12	12		5	3/15/2010	
2-Butanone (MEK)	< 5.0	5.0	< 15	15		5	3/15/2010	
2-Hexanone	< 5.0	5.0	< 21	21		5	3/15/2010	
2-Propanol (IPA)	< 10	10	< 25	25		5	3/15/2010	
4-Ethyltoluene	< 2.5	2.5	< 12	12		5	3/15/2010	
4-Methyl-2-pentanone (MIBK)	< 5.0	5.0	< 21	21		5	3/15/2010	
Acetone	< 25	25	< 60	60		5	3/15/2010	
Allyl chloride	< 2.5	2.5	< 7.8	7.8		5	3/15/2010	
Benzene	< 2.5	2.5	< 8.0	8.0		5	3/15/2010	
Benzyl chloride	< 10	10	< 52	52		5	3/15/2010	
Bromodichloromethane	< 2.5	2.5	< 17	17		5	3/15/2010	
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 11	11		5	3/15/2010	
Bromoform	< 2.5	2.5	< 26	26		5	3/15/2010	
Bromomethane	< 2.5	2.5	< 9.7	9.7		5	3/15/2010	
Carbon disulfide	< 2.5	2.5	< 7.8	7.8		5	3/15/2010	
Carbon tetrachloride	< 2.5	2.5	< 16	16		5	3/15/2010	
Chlorobenzene	< 2.5	2.5	< 12	12		5	3/15/2010	
Chloroethane	< 2.5	2.5	< 6.6	6.6		5	3/15/2010	
Chloroform	10	2.5	49	12	D1	5	3/15/2010	
Chloromethane	< 5.0	5.0	< 10	10		5	3/15/2010	
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/15/2010	
cis-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/15/2010	
Cyclohexane	< 2.5	2.5	< 8.6	8.6		5	3/15/2010	
Dibromochloromethane	< 2.5	2.5	< 21	21		5	3/15/2010	



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 06

Client Sample ID: HI-SVMW7A-030810
Project Number: 1303.036
Collection: 3/8/2010
Matrix: SoilVapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25	5	3/15/2010	
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17	17	5	3/15/2010	
Ethyl Acetate	< 2.5	2.5	< 9.0	9.0	5	3/15/2010	
Ethylbenzene	< 2.5	2.5	< 11	11	5	3/15/2010	
Heptane	< 2.5	2.5	< 10	10	5	3/15/2010	
Hexachlorobutadiene	< 5.0	5.0	< 53	53	5	3/15/2010	
Hexane	< 2.5	2.5	< 8.8	8.8	5	3/15/2010	
m&p-Xylene	< 5.0	5.0	< 22	22	5	3/15/2010	
Methyl tert-butyl ether	< 5.0	5.0	< 18	18	5	3/15/2010	
Methylene chloride	< 2.5	2.5	< 8.7	8.7	5	3/15/2010	
o-Xylene	< 2.5	2.5	< 11	11	5	3/15/2010	
Propene (Propylene)	< 2.5	2.5	< 4.3	4.3	5	3/15/2010	
Styrene	< 2.5	2.5	< 11	11	5	3/15/2010	
Tetrachloroethene	< 2.5	2.5	< 17	17	5	3/15/2010	
Tetrahydrofuran	< 10	10	< 30	30	5	3/15/2010	
Toluene	4.0	2.5	15	9.4	5	3/15/2010	
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9	5	3/15/2010	
trans-1,3-Dichloropropene	< 2.5	2.5	< 11	11	5	3/15/2010	
Trichloroethene	< 2.5	2.5	< 13	13	5	3/15/2010	
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14	14	5	3/15/2010	
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19	19	5	3/15/2010	
Vinyl acetate	< 2.5	2.5	< 8.8	8.8	5	3/15/2010	
Vinyl chloride	< 2.5	2.5	< 6.4	6.4	5	3/15/2010	
Surr: 4-Bromofluorobenzene	109	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 07

Client Sample ID: HI-SVMW5A-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010
1,2,4-Trimethylbenzene	2.0	1.0	9.8	4.9	D1	2	3/16/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
1,3,5-Trimethylbenzene	1.0	1.0	4.9	4.9	D1	2	3/16/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
Acetone	< 10	10	< 24	24		2	3/16/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010
Benzene	< 1.0	1.0	< 3.2	3.2		2	3/16/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010
Carbon disulfide	1.2	1.0	3.7	3.1	D1	2	3/16/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Chloroform	6.7	1.0	33	4.9	D1	2	3/16/2010
Chloromethane	< 2.0	2.0	< 4.1	4.1		2	3/16/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 07

Client Sample ID: HI-SVMW5A-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
m&p-Xylene	3.6	2.0	16	8.7	D1	2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	1.9	1.0	8.2	4.3	D1	2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	< 1.0	1.0	< 6.8	6.8		2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	4.4	1.0	17	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	112	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 08

Client Sample ID: HI-SVMW5B-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed	Analyst:	JJ
	Result	Limit	Result	Limit					
VOLATILE ORGANICS IN AIR			TO-15						
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010		
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010		
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010		
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010		
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010		
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010		
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010		
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010		
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010		
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010		
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010		
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010		
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010		
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010		
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010		
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010		
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010		
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010		
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010		
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010		
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010		
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010		
Acetone	12	10	29	24	D1	2	3/16/2010		
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010		
Benzene	< 1.0	1.0	< 3.2	3.2		2	3/16/2010		
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010		
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010		
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010		
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010		
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010		
Carbon disulfide	4.1	1.0	13	3.1	D1	2	3/16/2010		
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010		
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010		
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010		
Chloroform	6.7	1.0	33	4.9	D1	2	3/16/2010		
Chloromethane	2.0	2.0	4.1	4.1	D1	2	3/16/2010		
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010		
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010		
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010		
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010		



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 08

Client Sample ID: HI-SVMW5B-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: Soil/Vapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
m&p-Xylene	< 2.0	2.0	< 8.7	8.7		2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	< 1.0	1.0	< 6.8	6.8		2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	4.1	1.0	15	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	116	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 09

Client Sample ID: HI-SVMW3A-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010
1,2,4-Trimethylbenzene	2.6	1.0	13	4.9	D1	2	3/16/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
1,3,5-Trimethylbenzene	1.1	1.0	5.4	4.9	D1	2	3/16/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
Acetone	12	10	29	24	D1	2	3/16/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010
Benzene	< 1.0	1.0	< 3.2	3.2		2	3/16/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010
Bromoethene (Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010
Carbon disulfide	1.3	1.0	4.0	3.1	D1	2	3/16/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Chloroform	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
Chloromethane	< 2.0	2.0	< 4.1	4.1		2	3/16/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 09

Client Sample ID: HI-SVMW3A-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
m&p-Xylene	5.5	2.0	24	8.7	D1	2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	2.6	1.0	11	4.3	D1	2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	3.0	1.0	20	6.8	D1	2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	3.2	1.0	12	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	113	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 10

Client Sample ID: HI-SVMW3B-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed	
	Result	Limit	Result	Limit				
VOLATILE ORGANICS IN AIR	TO-15						Analyst:	JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010	
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010	
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010	
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010	
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010	
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010	
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010	
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010	
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010	
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010	
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010	
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010	
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010	
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010	
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010	
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010	
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010	
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010	
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010	
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010	
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010	
Acetone	< 10	10	< 24	24		2	3/16/2010	
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010	
Benzene	< 1.0	1.0	< 3.2	3.2		2	3/16/2010	
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010	
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010	
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010	
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010	
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010	
Carbon disulfide	3.6	1.0	11	3.1	D1	2	3/16/2010	
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010	
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010	
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010	
Chloroform	1.1	1.0	5.4	4.9	D1	2	3/16/2010	
Chloromethane	18	2.0	37	4.1	D1	2	3/16/2010	
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010	
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010	
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010	
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010	



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 10

Client Sample ID: HI-SVMW3B-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
m&p-Xylene	2.4	2.0	10	8.7	D1	2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	3.5	1.0	24	6.8	D1	2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	3.4	1.0	13	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	113	70-130	%REC				

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 11

Client Sample ID: HI-SVMW12A-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 2.5	2.5	< 14	14		5	3/16/2010
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17	17		5	3/16/2010
1,1,2-Trichloroethane	< 2.5	2.5	< 14	14		5	3/16/2010
1,1-Dichloroethane	< 2.5	2.5	< 10	10		5	3/16/2010
1,1-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/16/2010
1,2,4-Trichlorobenzene	< 10	10	< 74	74		5	3/16/2010
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/16/2010
1,2-Dibromoethane	< 2.5	2.5	< 19	19		5	3/16/2010
1,2-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/16/2010
1,2-Dichloroethane	< 2.5	2.5	< 10	10		5	3/16/2010
1,2-Dichloropropane	< 2.5	2.5	< 12	12		5	3/16/2010
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/16/2010
1,3-Butadiene	< 2.5	2.5	< 5.5	5.5		5	3/16/2010
1,3-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/16/2010
1,4-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/16/2010
1,4-Dioxane	< 10	10	< 36	36		5	3/16/2010
2,2,4-Trimethylpentane	< 2.5	2.5	< 12	12		5	3/16/2010
2-Butanone (MEK)	< 5.0	5.0	< 15	15		5	3/16/2010
2-Hexanone	< 5.0	5.0	< 21	21		5	3/16/2010
2-Propanol (IPA)	< 10	10	< 25	25		5	3/16/2010
4-Ethyltoluene	< 2.5	2.5	< 12	12		5	3/16/2010
4-Methyl-2-pentanone (MILK)	< 5.0	5.0	< 21	21		5	3/16/2010
Acetone	67	25	160	60	D2	5	3/16/2010
Allyl chloride	< 2.5	2.5	< 7.8	7.8		5	3/16/2010
Benzene	3.4	2.5	11	8.0		5	3/16/2010
Benzyl chloride	< 10	10	< 52	52		5	3/16/2010
Bromodichloromethane	< 2.5	2.5	< 17	17		5	3/16/2010
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 11	11		5	3/16/2010
Bromoform	< 2.5	2.5	< 26	26		5	3/16/2010
Bromomethane	< 2.5	2.5	< 9.7	9.7		5	3/16/2010
Carbon disulfide	11	2.5	34	7.8		5	3/16/2010
Carbon tetrachloride	< 2.5	2.5	< 16	16		5	3/16/2010
Chlorobenzene	< 2.5	2.5	< 12	12		5	3/16/2010
Chloroethane	< 2.5	2.5	< 6.6	6.6		5	3/16/2010
Chloroform	4.5	2.5	22	12		5	3/16/2010
Chloromethane	< 5.0	5.0	< 10	10		5	3/16/2010
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/16/2010
cis-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/16/2010
Cyclohexane	< 2.5	2.5	< 8.6	8.6		5	3/16/2010
Dibromochloromethane	< 2.5	2.5	< 21	21		5	3/16/2010

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 11

Client Sample ID: HI-SVMW12A-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25		5	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17	17		5	3/16/2010
Ethyl Acetate	< 2.5	2.5	< 9.0	9.0		5	3/16/2010
Ethylbenzene	< 2.5	2.5	< 11	11		5	3/16/2010
Heptane	< 2.5	2.5	< 10	10		5	3/16/2010
Hexachlorobutadiene	< 5.0	5.0	< 53	53		5	3/16/2010
Hexane	< 2.5	2.5	< 8.8	8.8		5	3/16/2010
m&p-Xylene	5.6	5.0	24	22		5	3/16/2010
Methyl tert-butyl ether	< 5.0	5.0	< 18	18		5	3/16/2010
Methylene chloride	< 2.5	2.5	< 8.7	8.7		5	3/16/2010
o-Xylene	< 2.5	2.5	< 11	11		5	3/16/2010
Propene (Propylene)	< 2.5	2.5	< 4.3	4.3		5	3/16/2010
Styrene	< 2.5	2.5	< 11	11		5	3/16/2010
Tetrachloroethene	7.5	2.5	51	17		5	3/16/2010
Tetrahydrofuran	< 10	10	< 30	30		5	3/16/2010
Toluene	7.0	2.5	26	9.4		5	3/16/2010
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/16/2010
trans-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/16/2010
Trichloroethene	< 2.5	2.5	< 13	13		5	3/16/2010
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14	14		5	3/16/2010
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19	19		5	3/16/2010
Vinyl acetate	< 2.5	2.5	< 8.8	8.8		5	3/16/2010
Vinyl chloride	< 2.5	2.5	< 6.4	6.4		5	3/16/2010
Surr: 4-Bromofluorobenzene	113	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 12

Client Sample ID: HI-SVMW12B-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 2.5	2.5	< 14	14		5	3/16/2010
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17	17		5	3/16/2010
1,1,2-Trichloroethane	< 2.5	2.5	< 14	14		5	3/16/2010
1,1-Dichloroethane	< 2.5	2.5	< 10	10		5	3/16/2010
1,1-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/16/2010
1,2,4-Trichlorobenzene	< 10	10	< 74	74		5	3/16/2010
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/16/2010
1,2-Dibromoethane	< 2.5	2.5	< 19	19		5	3/16/2010
1,2-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/16/2010
1,2-Dichloroethane	< 2.5	2.5	< 10	10		5	3/16/2010
1,2-Dichloropropane	< 2.5	2.5	< 12	12		5	3/16/2010
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12	12		5	3/16/2010
1,3-Butadiene	< 2.5	2.5	< 5.5	5.5		5	3/16/2010
1,3-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/16/2010
1,4-Dichlorobenzene	< 2.5	2.5	< 15	15		5	3/16/2010
1,4-Dioxane	< 10	10	< 36	36		5	3/16/2010
2,2,4-Trimethylpentane	< 2.5	2.5	< 12	12		5	3/16/2010
2-Butanone (MEK)	< 5.0	5.0	< 15	15		5	3/16/2010
2-Hexanone	< 5.0	5.0	< 21	21		5	3/16/2010
2-Propanol (IPA)	< 10	10	< 25	25		5	3/16/2010
4-Ethyltoluene	< 2.5	2.5	< 12	12		5	3/16/2010
4-Methyl-2-pentanone (MILK)	< 5.0	5.0	< 21	21		5	3/16/2010
Acetone	140	25	330	60	D2	5	3/16/2010
Allyl chloride	< 2.5	2.5	< 7.8	7.8		5	3/16/2010
Benzene	3.4	2.5	11	8.0		5	3/16/2010
Benzyl chloride	< 10	10	< 52	52		5	3/16/2010
Bromodichloromethane	< 2.5	2.5	< 17	17		5	3/16/2010
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 11	11		5	3/16/2010
Bromoform	< 2.5	2.5	< 26	26		5	3/16/2010
Bromomethane	< 3	2.5	< 9.7	9.7		5	3/16/2010
Carbon disulfide	11	2.5	34	7.8		5	3/16/2010
Carbon tetrachloride	< 2.5	2.5	< 16	16		5	3/16/2010
Chlorobenzene	< 2.5	2.5	< 12	12		5	3/16/2010
Chloroethane	< 2.5	2.5	< 6.6	6.6		5	3/16/2010
Chloroform	7.4	2.5	36	12		5	3/16/2010
Chloromethane	11	5.0	23	10		5	3/16/2010
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/16/2010
cis-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/16/2010
Cyclohexane	< 2.5	2.5	< 8.6	8.6		5	3/16/2010
Dibromochloromethane	< 2.5	2.5	< 21	21		5	3/16/2010

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 12

Client Sample ID: HI-SVMW12B-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: SoilVapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25		5	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17	17		5	3/16/2010
Ethyl Acetate	< 2.5	2.5	< 9.0	9.0		5	3/16/2010
Ethylbenzene	< 2.5	2.5	< 11	11		5	3/16/2010
Heptane	2.8	2.5	11	10		5	3/16/2010
Hexachlorobutadiene	< 5.0	5.0	< 53	53		5	3/16/2010
Hexane	< 2.5	2.5	< 8.8	8.8		5	3/16/2010
m&p-Xylene	< 5.0	5.0	< 22	22		5	3/16/2010
Methyl tert-butyl ether	< 5.0	5.0	< 18	18		5	3/16/2010
Methylene chloride	< 2.5	2.5	< 8.7	8.7		5	3/16/2010
o-Xylene	< 2.5	2.5	< 11	11		5	3/16/2010
Propene (Propylene)	< 2.5	2.5	< 4.3	4.3		5	3/16/2010
Styrene	< 2.5	2.5	< 11	11		5	3/16/2010
Tetrachloroethene	12	2.5	81	17		5	3/16/2010
Tetrahydrofuran	< 10	10	< 30	30		5	3/16/2010
Toluene	17	2.5	64	9.4		5	3/16/2010
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.9	9.9		5	3/16/2010
trans-1,3-Dichloropropene	< 2.5	2.5	< 11	11		5	3/16/2010
Trichloroethene	< 2.5	2.5	< 13	13		5	3/16/2010
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14	14		5	3/16/2010
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19	19		5	3/16/2010
Vinyl acetate	< 2.5	2.5	< 8.8	8.8		5	3/16/2010
Vinyl chloride	< 2.5	2.5	< 6.4	6.4		5	3/16/2010
Surr: 4-Bromofluorobenzene	108	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 13

Client Sample ID: HI-SVMW11A-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: SoilVapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed	Analyst	
	Result	Limit	Result	Limit					
VOLATILE ORGANICS IN AIR	TO-15							JJ	
1,1,1-Trichloroethane	< 10	10	< 55	55		20	3/16/2010		
1,1,2,2-Tetrachloroethane	< 10	10	< 69	69		20	3/16/2010		
1,1,2-Trichloroethane	< 10	10	< 55	55		20	3/16/2010		
1,1-Dichloroethane	< 10	10	< 41	41		20	3/16/2010		
1,1-Dichloroethene	< 10	10	< 40	40		20	3/16/2010		
1,2,4-Trichlorobenzene	< 40	40	< 297	297		20	3/16/2010		
1,2,4-Trimethylbenzene	< 10	10	< 49	49		20	3/16/2010		
1,2-Dibromoethane	< 10	10	< 77	77		20	3/16/2010		
1,2-Dichlorobenzene	< 10	10	< 60	60		20	3/16/2010		
1,2-Dichloroethane	< 10	10	< 41	41		20	3/16/2010		
1,2-Dichloropropane	< 10	10	< 46	46		20	3/16/2010		
1,3,5-Trimethylbenzene	< 10	10	< 49	49		20	3/16/2010		
1,3-Butadiene	< 10	10	< 22	22		20	3/16/2010		
1,3-Dichlorobenzene	< 10	10	< 60	60		20	3/16/2010		
1,4-Dichlorobenzene	< 10	10	< 60	60		20	3/16/2010		
1,4-Dioxane	< 40	40	< 144	144		20	3/16/2010		
2,2,4-Trimethylpentane	< 10	10	< 47	47		20	3/16/2010		
2-Butanone (MEK)	< 20	20	< 59	59		20	3/16/2010		
2-Hexanone	< 20	20	< 82	82		20	3/16/2010		
2-Propanol (IPA)	< 40	40	< 98	98		20	3/16/2010		
4-Ethyltoluene	< 10	10	< 49	49		20	3/16/2010		
4-Methyl-2-pentanone (MIK)	< 20	20	< 82	82		20	3/16/2010		
Acetone	< 100	100	< 238	238		20	3/16/2010		
Allyl chloride	< 10	10	< 31	31		20	3/16/2010		
Benzene	< 10	10	< 32	32		20	3/16/2010		
Benzyl chloride	< 40	40	< 207	207		20	3/16/2010		
Bromodichloromethane	< 10	10	< 67	67		20	3/16/2010		
Bromoethene (Vinyl Bromide)	< 10	10	< 44	44		20	3/16/2010		
Bromoform	< 10	10	< 103	103		20	3/16/2010		
Bromomethane	< 10	10	< 39	39		20	3/16/2010		
Carbon disulfide	< 10	10	< 31	31		20	3/16/2010		
Carbon tetrachloride	< 10	10	< 63	63		20	3/16/2010		
Chlorobenzene	< 10	10	< 46	46		20	3/16/2010		
Chloroethane	< 10	10	< 26	26		20	3/16/2010		
Chloroform	< 10	10	< 49	49		20	3/16/2010		
Chloromethane	< 20	20	< 41	41		20	3/16/2010		
cis-1,2-Dichloroethene	< 10	10	< 40	40		20	3/16/2010		
cis-1,3-Dichloropropene	< 10	10	< 45	45		20	3/16/2010		
Cyclohexane	< 10	10	< 34	34		20	3/16/2010		
Dibromochloromethane	< 10	10	< 85	85		20	3/16/2010		

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 13

Client Sample ID: HI-SVMW11A-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: SoilVapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 20	20	< 99	99		20	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 10	10	< 70	70		20	3/16/2010
Ethyl Acetate	< 10	10	< 36	36		20	3/16/2010
Ethylbenzene	< 10	10	< 43	43		20	3/16/2010
Heptane	< 10	10	< 41	41		20	3/16/2010
Hexachlorobutadiene	< 20	20	< 213	213		20	3/16/2010
Hexane	< 10	10	< 35	35		20	3/16/2010
m&p-Xylene	< 20	20	< 87	87		20	3/16/2010
Methyl tert-butyl ether	< 20	20	< 72	72		20	3/16/2010
Methylene chloride	< 10	10	< 35	35		20	3/16/2010
o-Xylene	< 10	10	< 43	43		20	3/16/2010
Propene (Propylene)	< 10	10	< 17	17		20	3/16/2010
Styrene	< 10	10	< 43	43		20	3/16/2010
Tetrachloroethene	460	10	3,100	68	D2	20	3/16/2010
Tetrahydrofuran	< 40	40	< 118	118		20	3/16/2010
Toluene	< 10	10	< 38	38		20	3/16/2010
trans-1,2-Dichloroethene	< 10	10	< 40	40		20	3/16/2010
trans-1,3-Dichloropropene	< 10	10	< 45	45		20	3/16/2010
Trichloroethene	< 10	10	< 54	54		20	3/16/2010
Trichlorofluoromethane(F-11)	< 10	10	< 56	56		20	3/16/2010
Trichlorotrifluoroethane(F-113)	< 10	10	< 77	77		20	3/16/2010
Vinyl acetate	< 10	10	< 35	35		20	3/16/2010
Vinyl chloride	< 10	10	< 26	26		20	3/16/2010
Surr: 4-Bromofluorobenzene	103	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 14

Client Sample ID: HI-SVMW11B-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 10	10	< 55	55		20	3/16/2010
1,1,2,2-Tetrachloroethane	< 10	10	< 69	69		20	3/16/2010
1,1,2-Trichloroethane	< 10	10	< 55	55		20	3/16/2010
1,1-Dichloroethane	< 10	10	< 41	41		20	3/16/2010
1,1-Dichloroethene	< 10	10	< 40	40		20	3/16/2010
1,2,4-Trichlorobenzene	< 40	40	< 297	297		20	3/16/2010
1,2,4-Trimethylbenzene	< 10	10	< 49	49		20	3/16/2010
1,2-Dibromoethane	< 10	10	< 77	77		20	3/16/2010
1,2-Dichlorobenzene	< 10	10	< 60	60		20	3/16/2010
1,2-Dichloroethane	< 10	10	< 41	41		20	3/16/2010
1,2-Dichloropropane	< 10	10	< 46	46		20	3/16/2010
1,3,5-Trimethylbenzene	< 10	10	< 49	49		20	3/16/2010
1,3-Butadiene	< 10	10	< 22	22		20	3/16/2010
1,3-Dichlorobenzene	< 10	10	< 60	60		20	3/16/2010
1,4-Dichlorobenzene	< 10	10	< 60	60		20	3/16/2010
1,4-Dioxane	< 40	40	< 144	144		20	3/16/2010
2,2,4-Trimethylpentane	< 10	10	< 47	47		20	3/16/2010
2-Butanone (MEK)	< 20	20	< 59	59		20	3/16/2010
2-Hexanone	< 20	20	< 82	82		20	3/16/2010
2-Propanol (IPA)	< 40	40	< 98	98		20	3/16/2010
4-Ethyltoluene	< 10	10	< 49	49		20	3/16/2010
4-Methyl-2-pentanone (MIBK)	< 20	20	< 82	82		20	3/16/2010
Acetone	130	100	309	238	D2	20	3/16/2010
Allyl chloride	< 10	10	< 31	31		20	3/16/2010
Benzene	< 10	10	< 32	32		20	3/16/2010
Benzyl chloride	< 40	40	< 207	207		20	3/16/2010
Bromodichloromethane	< 10	10	< 67	67		20	3/16/2010
Bromoethene(Vinyl Bromide)	< 10	10	< 44	44		20	3/16/2010
Bromoform	< 10	10	< 103	103		20	3/16/2010
Bromomethane	< 10	10	< 39	39		20	3/16/2010
Carbon disulfide	< 10	10	< 31	31		20	3/16/2010
Carbon tetrachloride	< 10	10	< 63	63		20	3/16/2010
Chlorobenzene	< 10	10	< 46	46		20	3/16/2010
Chloroethane	< 10	10	< 26	26		20	3/16/2010
Chloroform	15	10	73	49		20	3/16/2010
Chloromethane	< 20	20	< 41	41		20	3/16/2010
cis-1,2-Dichloroethene	< 10	10	< 40	40		20	3/16/2010
cis-1,3-Dichloropropene	< 10	10	< 45	45		20	3/16/2010
Cyclohexane	< 10	10	< 34	34		20	3/16/2010
Dibromochloromethane	< 10	10	< 85	85		20	3/16/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 14

Client Sample ID: HI-SVMW11B-030910
Project Number: 1303.036
Collection: 3/9/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 20	20	< 99	99		20	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 10	10	< 70	70		20	3/16/2010
Ethyl Acetate	< 10	10	< 36	36		20	3/16/2010
Ethylbenzene	< 10	10	< 43	43		20	3/16/2010
Heptane	< 10	10	< 41	41		20	3/16/2010
Hexachlorobutadiene	< 20	20	< 213	213		20	3/16/2010
Hexane	< 10	10	< 35	35		20	3/16/2010
m&p-Xylene	< 20	20	< 87	87		20	3/16/2010
Methyl tert-butyl ether	< 20	20	< 72	72		20	3/16/2010
Methylene chloride	< 10	10	< 35	35		20	3/16/2010
o-Xylene	< 10	10	< 43	43		20	3/16/2010
Propene (Propylene)	< 10	10	< 17	17		20	3/16/2010
Styrene	< 10	10	< 43	43		20	3/16/2010
Tetrachloroethene	670	10	4,500	68	D2	20	3/16/2010
Tetrahydrofuran	< 40	40	< 118	118		20	3/16/2010
Toluene	11	10	41	38		20	3/16/2010
trans-1,2-Dichloroethene	< 10	10	< 40	40		20	3/16/2010
trans-1,3-Dichloropropene	< 10	10	< 45	45		20	3/16/2010
Trichloroethene	11	10	59	54		20	3/16/2010
Trichlorofluoromethane(F-11)	< 10	10	< 56	56		20	3/16/2010
Trichlorotrifluoroethane(F-113)	< 10	10	< 77	77		20	3/16/2010
Vinyl acetate	< 10	10	< 35	35		20	3/16/2010
Vinyl chloride	< 10	10	< 26	26		20	3/16/2010
Surr: 4-Bromofluorobenzene	105	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 15

Client Sample ID: HI-SVMW4A-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010
2,2,4-Trimethylpentane	1.0	1.0	4.7	4.7	D1	2	3/16/2010
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
Acetone	11	10	26	24	D1	2	3/16/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010
Benzene	< 1.0	1.0	< 3.2	3.2		2	3/16/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010
Bromoethene (Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010
Carbon disulfide	1.5	1.0	4.7	3.1	D1	2	3/16/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Chloroform	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
Chloromethane	< 2.0	2.0	< 4.1	4.1		2	3/16/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 15

Client Sample ID: HI-SVMW4A-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	1.1	1.0	3.9	3.5	D1	2	3/16/2010
m&p-Xylene	< 2.0	2.0	< 8.7	8.7		2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	2.0	1.0	14	6.8	D1	2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	3.9	1.0	15	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	110	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 16

Client Sample ID: HI-SVMW4B-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010
1,2,4-Trimethylbenzene	7.3	1.0	36	4.9	D1	2	3/16/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
1,3,5-Trimethylbenzene	2.5	1.0	12	4.9	D1	2	3/16/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010
2,2,4-Trimethylpentane	2.4	1.0	11	4.7	D1	2	3/16/2010
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010
4-Ethyltoluene	3.0	1.0	15	4.9	D1	2	3/16/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
Acetone	< 10	10	< 24	24		2	3/16/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010
Benzene	4.0	1.0	13	3.2	D1	2	3/16/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010
Bromoethene (Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010
Carbon disulfide	4.9	1.0	15	3.1	D1	2	3/16/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Chloroform	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
Chloromethane	16	2.0	33	4.1	D1	2	3/16/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 16

Client Sample ID: HI-SVMW4B-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	2.3	1.0	10	4.3	D1	2	3/16/2010
Heptane	1.8	1.0	7.4	4.1	D1	2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	3.3	1.0	12	3.5	D1	2	3/16/2010
m&p-Xylene	21	2.0	91	8.7	D1	2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	7.7	1.0	33	4.3	D1	2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	2.1	1.0	14	6.8	D1	2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	17	1.0	64	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	108	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 17

Client Sample ID: HI-SVMW8-5-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010
1,2,4-Trimethylbenzene	1.5	1.0	7.4	4.9	D1	2	3/16/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
Acetone	18	10	43	24	D1	2	3/16/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010
Benzene	< 1.0	1.0	< 3.2	3.2		2	3/16/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010
Carbon disulfide	4.0	1.0	12	3.1	D1	2	3/16/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Chloroform	1.4	1.0	6.8	4.9	D1	2	3/16/2010
Chloromethane	< 2.0	2.0	< 4.1	4.1		2	3/16/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 17

Client Sample ID: HI-SVMW8-5-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO-15		Analyst: JJ			
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	1.3	1.0	4.6	3.5	D1	2	3/16/2010
m&p-Xylene	2.2	2.0	9.5	8.7	D1	2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	3.8	1.0	26	6.8	D1	2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	3.7	1.0	14	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	106	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 18

Client Sample ID: HI-SVMW8-10-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010
1,2,4-Trimethylbenzene	120	1.0	590	4.9	D2	2	3/16/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
1,3,5-Trimethylbenzene	49	1.0	241	4.9		2	3/16/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010
4-Ethyltoluene	18	1.0	89	4.9		2	3/16/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
Acetone	17	10	40	24		2	3/16/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010
Benzene	< 1.0	1.0	< 3.2	3.2		2	3/16/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010
Carbon disulfide	6.9	1.0	21	3.1		2	3/16/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Chloroform	1.9	1.0	9.3	4.9		2	3/16/2010
Chloromethane	2.4	2.0	5.0	4.1		2	3/16/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 18

Client Sample ID: HI-SVMW8-10-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	2.8	1.0	12	4.3		2	3/16/2010
Heptane	1.1	1.0	4.5	4.1		2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	1.2	1.0	4.2	3.5		2	3/16/2010
m&p-Xylene	77	2.0	334	8.7		2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	71	1.0	308	4.3	D2	2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	5.1	1.0	35	6.8		2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	4.5	1.0	17	3.8		2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	107	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 19

Client Sample ID: HI-SVMW8-20-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed		
	Result	Limit	Result	Limit					
VOLATILE ORGANICS IN AIR	TO-15							Analyst:	JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010		
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010		
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010		
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010		
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010		
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010		
1,2,4-Trimethylbenzene	2.0	1.0	9.8	4.9	D1	2	3/16/2010		
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010		
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010		
1,2-Dichloroethane	1.4	1.0	5.7	4.1	D1	2	3/16/2010		
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010		
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010		
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010		
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010		
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010		
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010		
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010		
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010		
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010		
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010		
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010		
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010		
Acetone	38	10	90	24	D1	2	3/16/2010		
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010		
Benzene	2.1	1.0	6.7	3.2	D1	2	3/16/2010		
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010		
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010		
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010		
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010		
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010		
Carbon disulfide	23	1.0	72	3.1	D1	2	3/16/2010		
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010		
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010		
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010		
Chloroform	2.5	1.0	12	4.9	D1	2	3/16/2010		
Chloromethane	19	2.0	39	4.1	D1	2	3/16/2010		
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010		
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010		
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010		
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010		

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 19

Client Sample ID: HI-SVMW8-20-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	1.4	1.0	6.1	4.3	D1	2	3/16/2010
Heptane	2.2	1.0	9.0	4.1	D1	2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	1.8	1.0	6.3	3.5	D1	2	3/16/2010
m&p-Xylene	3.4	2.0	15	8.7	D1	2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	1.3	1.0	5.6	4.3	D1	2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	5.2	1.0	35	6.8	D1	2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	37	1.0	139	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	111	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 20

Client Sample ID: HI-SVMW8-30-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: Soil/Vapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010
1,2,4-Trimethylbenzene	1.3	1.0	6.4	4.9	D1	2	3/16/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/16/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
4-Methyl-2-pentanone (MIB)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
Acetone	34	10	81	24	D1	2	3/16/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010
Benzene	1.6	1.0	5.1	3.2	D1	2	3/16/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010
Bromoethene (Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010
Carbon disulfide	2.9	1.0	9.0	3.1	D1	2	3/16/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Chloroform	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
Chloromethane	2.8	2.0	5.8	4.1	D1	2	3/16/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 20

Client Sample ID: HI-SVMW8-30-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Heptane	1.2	1.0	4.9	4.1	D1	2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	1.0	1.0	3.5	3.5	D1	2	3/16/2010
m&p-Xylene	< 2.0	2.0	< 8.7	8.7		2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	2.3	1.0	16	6.8	D1	2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	4.3	1.0	16	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	109	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 21

Client Sample ID: HI-SVMW8-40-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed	
	Result	Limit	Result	Limit				
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010	
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010	
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010	
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010	
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010	
1,2,4-Trimethylbenzene	3.1	1.0	15	4.9	D1	2	3/16/2010	
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010	
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010	
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010	
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010	
1,3,5-Trimethylbenzene	1.3	1.0	6.4	4.9	D1	2	3/16/2010	
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010	
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010	
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010	
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010	
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010	
2-Butanone (MEK)	4.4	2.0	13	5.9	D1	2	3/16/2010	
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010	
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010	
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010	
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010	
Acetone	23	10	55	24	D1	2	3/16/2010	
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010	
Benzene	< 1.0	1.0	< 3.2	3.2		2	3/16/2010	
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010	
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010	
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010	
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010	
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010	
Carbon disulfide	5.2	1.0	16	3.1	D1	2	3/16/2010	
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010	
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010	
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010	
Chloroform	5.0	1.0	24	4.9	D1	2	3/16/2010	
Chloromethane	< 2.0	2.0	< 4.1	4.1		2	3/16/2010	
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010	
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010	
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010	
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010	



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 21

Client Sample ID: HI-SVMW8-40-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
m&p-Xylene	2.8	2.0	12	8.7	D1	2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	1.2	1.0	5.2	4.3	D1	2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	10	1.0	68	6.8	D1	2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	3.7	1.0	14	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	2.5	1.0	13	5.4	D1	2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	108	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 22

Client Sample ID: HI-SVMW8-50-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010
1,2,4-Trimethylbenzene	1.5	1.0	7.4	4.9		2	3/16/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,2-Dichloroethane	2.1	1.0	8.5	4.1		2	3/16/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010
2-Butanone (MEK)	16	2.0	47	5.9		2	3/16/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
4-Methyl-2-pentanone (MIB)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
Acetone	130	10	309	24	D2	2	3/16/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010
Benzene	3.9	1.0	12	3.2		2	3/16/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010
Carbon disulfide	21	1.0	65	3.1		2	3/16/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
Chloroethane	1.6	1.0	4.2	2.6		2	3/16/2010
Chloroform	1.4	1.0	6.8	4.9		2	3/16/2010
Chloromethane	27	2.0	56	4.1		2	3/16/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 22

Client Sample ID: HI-SVMW8-50-031010
Project Number: 1303.036
Collection: 3/10/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	1.0	1.0	4.3	4.3		2	3/16/2010
Heptane	4.4	1.0	18	4.1		2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
m&p-Xylene	3.1	2.0	13	8.7		2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	1.1	1.0	3.8	3.5		2	3/16/2010
o-Xylene	1.4	1.0	6.1	4.3		2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	1.7	1.0	12	6.8		2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	13	1.0	49	3.8		2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	110	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 23

Client Sample ID: HI-SVMW8-60-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/16/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/16/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/16/2010
1,2,4-Trimethylbenzene	1.3	1.0	6.4	4.9	D1	2	3/16/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/16/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/16/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/16/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/16/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/16/2010
2-Butanone (MEK)	3.8	2.0	11	5.9	D1	2	3/16/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/16/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
4-Methyl-2-pentanone (MIB)	< 2.0	2.0	< 8.2	8.2		2	3/16/2010
Acetone	45	10	107	24	D1	2	3/16/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/16/2010
Benzene	1.8	1.0	5.7	3.2	D1	2	3/16/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/16/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/16/2010
Bromoethene (Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/16/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/16/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/16/2010
Carbon disulfide	5.6	1.0	17	3.1	D1	2	3/16/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/16/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/16/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Chloroform	< 1.0	1.0	< 4.9	4.9		2	3/16/2010
Chloromethane	6.2	2.0	13	4.1	D1	2	3/16/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/16/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/16/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 23

Client Sample ID: HI-SVMW8-60-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/16/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/16/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Heptane	1.7	1.0	7.0	4.1	D1	2	3/16/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/16/2010
Hexane	1.6	1.0	5.6	3.5	D1	2	3/16/2010
m&p-Xylene	3.0	2.0	13	8.7	D1	2	3/16/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/16/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
o-Xylene	1.2	1.0	5.2	4.3	D1	2	3/16/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/16/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/16/2010
Tetrachloroethene	2.3	1.0	16	6.8	D1	2	3/16/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/16/2010
Toluene	5.7	1.0	21	3.8	D1	2	3/16/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/16/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/16/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/16/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/16/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/16/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/16/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/16/2010
Surr: 4-Bromofluorobenzene	104	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 24

Client Sample ID: HI-SVMW8-70-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/17/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/17/2010
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/17/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/17/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/17/2010
2-Butanone (MEK)	2.8	2.0	8.3	5.9	D1	2	3/17/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/17/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
Acetone	25	10	60	24	D1	2	3/17/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/17/2010
Benzene	< 1.0	1.0	< 3.2	3.2		2	3/17/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/17/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/17/2010
Bromoethene (Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/17/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/17/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/17/2010
Carbon disulfide	< 1.0	1.0	< 3.1	3.1		2	3/17/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/17/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Chloroform	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
Chloromethane	< 2.0	2.0	< 4.1	4.1		2	3/17/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/17/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/17/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 24

Client Sample ID: HI-SVMW8-70-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/17/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/17/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/17/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Heptane	1.1	1.0	4.5	4.1	D1	2	3/17/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/17/2010
Hexane	1.0	1.0	3.5	3.5	D1	2	3/17/2010
m&p-Xylene	< 2.0	2.0	< 8.7	8.7		2	3/17/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/17/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
o-Xylene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/17/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Tetrachloroethene	< 1.0	1.0	< 6.8	6.8		2	3/17/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/17/2010
Toluene	3.6	1.0	14	3.8	D1	2	3/17/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/17/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/17/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Surr: 4-Bromofluorobenzene	109	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 25

Client Sample ID: HI-SVMW1-20-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed	
	Result	Limit	Result	Limit				
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ	
1,1,1-Trichloroethane	24	1.0	131	5.5		2	3/17/2010	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/17/2010	
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010	
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010	
1,1-Dichloroethene	4.9	1.0	19	4.0		2	3/17/2010	
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/17/2010	
1,2,4-Trimethylbenzene	1.3	1.0	6.4	4.9		2	3/17/2010	
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/17/2010	
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010	
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010	
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/17/2010	
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010	
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/17/2010	
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010	
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010	
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/17/2010	
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/17/2010	
2-Butanone (MEK)	3.5	2.0	10	5.9		2	3/17/2010	
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/17/2010	
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/17/2010	
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010	
4-Methyl-2-pentanone (MIK)	< 2.0	2.0	< 8.2	8.2		2	3/17/2010	
Acetone	24	10	57	24		2	3/17/2010	
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/17/2010	
Benzene	1.4	1.0	4.5	3.2		2	3/17/2010	
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/17/2010	
Bromodichloromethane	1.4	1.0	9.4	6.7		2	3/17/2010	
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/17/2010	
Bromoform	< 1.0	1.0	< 10	10		2	3/17/2010	
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/17/2010	
Carbon disulfide	340	10	1,100	31	D2	20	3/17/2010	
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/17/2010	
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/17/2010	
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/17/2010	
Chloroform	11	1.0	54	4.9		2	3/17/2010	
Chloromethane	18	2.0	37	4.1		2	3/17/2010	
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010	
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010	
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/17/2010	
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/17/2010	



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 25

Client Sample ID: HI-SVMW1-20-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/17/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/17/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/17/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/17/2010
Hexane	1.2	1.0	4.2	3.5		2	3/17/2010
m&p-Xylene	3.3	2.0	14	8.7		2	3/17/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/17/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
o-Xylene	2.1	1.0	9.1	4.3		2	3/17/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/17/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Tetrachloroethene	670	10	4,500	68		20	3/17/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/17/2010
Toluene	6.3	1.0	24	3.8		2	3/17/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Trichloroethene	5.4	1.0	29	5.4		2	3/17/2010
Trichlorofluoromethane(F-11)	1.4	1.0	7.9	5.6		2	3/17/2010
Trichlorotrifluoroethane(F-113)	1.4	1.0	11	7.7		2	3/17/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Surr: 4-Bromofluorobenzene	109	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 26

Client Sample ID: HI-SVMW1-35-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	12	1.0	66	5.5		2	3/17/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/17/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
1,1-Dichloroethene	3.6	1.0	14	4.0		2	3/17/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/17/2010
1,2,4-Trimethylbenzene	1.3	1.0	6.4	4.9		2	3/17/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,2-Dichloroethane	2.2	1.0	8.9	4.1		2	3/17/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/17/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/17/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/17/2010
2-Butanone (MEK)	5.8	2.0	17	5.9		2	3/17/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/17/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
4-Methyl-2-pentanone (MIK)	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
Acetone	38	10	90	24		2	3/17/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/17/2010
Benzene	2.5	1.0	8.0	3.2		2	3/17/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/17/2010
Bromodichloromethane	1.5	1.0	10	6.7		2	3/17/2010
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/17/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/17/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/17/2010
Carbon disulfide	1900	50	5,900	156	D2	100	3/17/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/17/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
Chloroethane	13	1.0	34	2.6		2	3/17/2010
Chloroform	12	1.0	59	4.9		2	3/17/2010
Chloromethane	170	20	352	41	D2	20	3/17/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/17/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/17/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 26

Client Sample ID: HI-SVMW1-35-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/17/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/17/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/17/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Heptane	2.9	1.0	12	4.1		2	3/17/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/17/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
m&p-Xylene	< 2.0	2.0	< 8.7	8.7		2	3/17/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/17/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
o-Xylene	1.0	1.0	4.3	4.3		2	3/17/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/17/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Tetrachloroethene	770	10	5,200	68	D2	20	3/17/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/17/2010
Toluene	5.9	1.0	22	3.8		2	3/17/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Trichloroethene	5.0	1.0	27	5.4		2	3/17/2010
Trichlorofluoromethane(F-11)	1.5	1.0	8.4	5.6		2	3/17/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
Vinyl chloride	14	1.0	36	2.6		2	3/17/2010
Surr: 4-Bromofluorobenzene	109	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 27

Client Sample ID: HI-SVMW1-50-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M³		Qual	DF	Date Analyzed	Analyst:	JJ
	Result	Limit	Result	Limit					
VOLATILE ORGANICS IN AIR		TO-15							
1,1,1-Trichloroethane	16	1.0	87	5.5		2	3/17/2010		
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/17/2010		
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010		
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010		
1,1-Dichloroethene	2.7	1.0	11	4.0		2	3/17/2010		
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/17/2010		
1,2,4-Trimethylbenzene	2.8	1.0	14	4.9		2	3/17/2010		
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/17/2010		
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010		
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010		
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/17/2010		
1,3,5-Trimethylbenzene	1.4	1.0	6.9	4.9		2	3/17/2010		
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/17/2010		
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010		
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010		
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/17/2010		
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/17/2010		
2-Butanone (MEK)	4.0	2.0	12	5.9		2	3/17/2010		
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/17/2010		
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/17/2010		
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010		
4-Methyl-2-pentanone (MIK)	< 2.0	2.0	< 8.2	8.2		2	3/17/2010		
Acetone	34	10	81	24		2	3/17/2010		
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/17/2010		
Benzene	1.9	1.0	6.1	3.2		2	3/17/2010		
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/17/2010		
Bromodichloromethane	1.3	1.0	8.7	6.7		2	3/17/2010		
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/17/2010		
Bromoform	< 1.0	1.0	< 10	10		2	3/17/2010		
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/17/2010		
Carbon disulfide	710	10	2,200	31	D2	20	3/17/2010		
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/17/2010		
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/17/2010		
Chloroethane	4.0	1.0	11	2.6		2	3/17/2010		
Chloroform	9.5	1.0	46	4.9		2	3/17/2010		
Chloromethane	50	2.0	104	4.1	D2	2	3/17/2010		
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010		
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010		
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/17/2010		
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/17/2010		



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 27

Client Sample ID: HI-SVMW1-50-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: Soil Vapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/17/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/17/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/17/2010
Ethylbenzene	1.1	1.0	4.8	4.3		2	3/17/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/17/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
m&p-Xylene	4.4	2.0	19	8.7		2	3/17/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/17/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
o-Xylene	2.5	1.0	11	4.3		2	3/17/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/17/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Tetrachloroethene	510	10	3500	68	D2	20	3/17/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/17/2010
Toluene	6.8	1.0	26	3.8		2	3/17/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Trichloroethene	4.1	1.0	22	5.4		2	3/17/2010
Trichlorofluoromethane(F-11)	1.1	1.0	6.2	5.6		2	3/17/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Surr: 4-Bromofluorobenzene	112	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 28

Client Sample ID: HI-SVMW1-65-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	5.8	1.0	32	5.5		2	3/17/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/17/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/17/2010
1,2,4-Trimethylbenzene	1.7	1.0	8.4	4.9		2	3/17/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/17/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/17/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/17/2010
2-Butanone (MEK)	3.7	2.0	11	5.9		2	3/17/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/17/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
Acetone	19	10	45	24		2	3/17/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/17/2010
Benzene	1.1	1.0	3.5	3.2		2	3/17/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/17/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/17/2010
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/17/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/17/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/17/2010
Carbon disulfide	51	1.0	159	3.1	D2	2	3/17/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/17/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Chloroform	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
Chloromethane	3.4	2.0	7.0	4.1		2	3/17/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/17/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/17/2010

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 28

Client Sample ID: HI-SVMW1-65-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/17/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/17/2010
Ethyl Acetate	1.6	1.0	5.8	3.6		2	3/17/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/17/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
m&p-Xylene	< 2.0	2.0	< 8.7	8.7		2	3/17/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/17/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
o-Xylene	1.0	1.0	4.3	4.3		2	3/17/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/17/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Tetrachloroethene	36	1.0	244	6.8		2	3/17/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/17/2010
Toluene	20	1.0	75	3.8		2	3/17/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/17/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/17/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Surr: 4-Bromofluorobenzene	114	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 29

Client Sample ID: HI-SVMW10A-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/17/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/17/2010
1,2,4-Trimethylbenzene	38	1.0	187	4.9		2	3/17/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
1,3,5-Trimethylbenzene	34	1.0	167	4.9		2	3/17/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/17/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/17/2010
2,2,4-Trimethylpentane	3.1	1.0	14	4.7		2	3/17/2010
2-Butanone (MEK)	11	2.0	32	5.9		2	3/17/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/17/2010
4-Ethyltoluene	15	1.0	74	4.9		2	3/17/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
Acetone	150	100	357	238	D2	20	3/23/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/17/2010
Benzene	9.3	1.0	30	3.2		2	3/17/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/17/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/17/2010
Bromoethene (Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/17/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/17/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/17/2010
Carbon disulfide	42	1.0	131	3.1		2	3/17/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/17/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Chloroform	1.3	1.0	6.3	4.9		2	3/17/2010
Chloromethane	< 2.0	2.0	< 4.1	4.1		2	3/17/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/17/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/17/2010

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 29

Client Sample ID: HI-SVMW10A-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		$\mu\text{g}/\text{M}^3$		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/17/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/17/2010
Ethyl Acetate	1.4	1.0	5.0	3.6		2	3/17/2010
Ethylbenzene	15	1.0	65	4.3		2	3/17/2010
Heptane	6.0	1.0	25	4.1		2	3/17/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/17/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
m&p-Xylene	59	2.0	256	8.7		2	3/17/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/17/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
o-Xylene	32	1.0	139	4.3		2	3/17/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/17/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Tetrachloroethene	37	1.0	251	6.8		2	3/17/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/17/2010
Toluene	22	1.0	83	3.8		2	3/17/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/17/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/17/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Surr: 4-Bromofluorobenzene	115	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 30

Client Sample ID: HI-SVMW10B-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/17/2010
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/17/2010
1,2,4-Trimethylbenzene	2.1	1.0	10	4.9		2	3/17/2010
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/17/2010
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/17/2010
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7		2	3/17/2010
2-Butanone (MEK)	10	2.0	30	5.9		2	3/17/2010
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/17/2010
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/17/2010
Acetone	69	10	164	24	D2	2	3/17/2010
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/17/2010
Benzene	1.9	1.0	6.1	3.2		2	3/17/2010
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/17/2010
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/17/2010
Bromoethene (Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/17/2010
Bromoform	< 1.0	1.0	< 10	10		2	3/17/2010
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/17/2010
Carbon disulfide	7.1	1.0	22	3.1		2	3/17/2010
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/17/2010
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/17/2010
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Chloroform	3.2	1.0	16	4.9		2	3/17/2010
Chloromethane	11	2.0	23	4.1		2	3/17/2010
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/17/2010
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/17/2010



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 30

Client Sample ID: HI-SVMW10B-031110
Project Number: 1303.036
Collection: 3/11/2010
Matrix: Soil Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/17/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/17/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/17/2010
Ethylbenzene	1.1	1.0	4.8	4.3		2	3/17/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/17/2010
Hexane	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
m&p-Xylene	4.6	2.0	20	8.7		2	3/17/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/17/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
o-Xylene	2.0	1.0	8.7	4.3		2	3/17/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/17/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Tetrachloroethene	76	1.0	515	6.8	D2	2	3/17/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/17/2010
Toluene	30	1.0	113	3.8		2	3/17/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Trichloroethene	1.3	1.0	7.0	5.4		2	3/17/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/17/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Surr: 4-Bromofluorobenzene	113	70-130	%REC				

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 31

Client Sample ID: HI-SVMW9A-031210
Project Number: 1303.036
Collection: 3/12/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed	Analyst:	JJ
	Result	Limit	Result	Limit					
VOLATILE ORGANICS IN AIR	TO-15								
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010		
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/17/2010		
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010		
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010		
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010		
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/17/2010		
1,2,4-Trimethylbenzene	2.3	1.0	11	4.9		2	3/17/2010		
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/17/2010		
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010		
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010		
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/17/2010		
1,3,5-Trimethylbenzene	1.1	1.0	5.4	4.9		2	3/17/2010		
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/17/2010		
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010		
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010		
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/17/2010		
2,2,4-Trimethylpentane	1.2	1.0	5.6	4.7		2	3/17/2010		
2-Butanone (MEK)	3.9	2.0	12	5.9		2	3/17/2010		
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/17/2010		
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/17/2010		
4-Ethyltoluene	1.1	1.0	5.4	4.9		2	3/17/2010		
4-Methyl-2-pentanone (MIK)	< 2.0	2.0	< 8.2	8.2		2	3/17/2010		
Acetone	55	10	131	24	D2	2	3/17/2010		
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/17/2010		
Benzene	3.9	1.0	12	3.2		2	3/17/2010		
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/17/2010		
Bromodichloromethane	< 1.0	1.0	< 6.7	6.7		2	3/17/2010		
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/17/2010		
Bromoform	< 1.0	1.0	< 10	10		2	3/17/2010		
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/17/2010		
Carbon disulfide	4.4	1.0	14	3.1		2	3/17/2010		
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/17/2010		
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/17/2010		
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/17/2010		
Chloroform	4.4	1.0	21	4.9		2	3/17/2010		
Chloromethane	< 2.0	2.0	< 4.1	4.1		2	3/17/2010		
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010		
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010		
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/17/2010		
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/17/2010		



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 31

Client Sample ID: HI-SVMW9A-031210
Project Number: 1303.036
Collection: 3/12/2010
Matrix: Soil/Vapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/17/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/17/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/17/2010
Ethylbenzene	1.2	1.0	5.2	4.3		2	3/17/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/17/2010
Hexane	1.8	1.0	6.3	3.5		2	3/17/2010
m&p-Xylene	6.9	2.0	30	8.7		2	3/17/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/17/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
o-Xylene	2.8	1.0	12	4.3		2	3/17/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/17/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Tetrachloroethene	14	1.0	95	6.8		2	3/17/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/17/2010
Toluene	14	1.0	53	3.8		2	3/17/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/17/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/17/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Surr: 4-Bromofluorobenzene	112	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 32

Client Sample ID: HI-SVMW9B-031210
Project Number: 1303.036
Collection: 3/12/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed		
	Result	Limit	Result	Limit					
VOLATILE ORGANICS IN AIR	TO-15							Analyst:	JJ
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010		
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.9	6.9		2	3/17/2010		
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5		2	3/17/2010		
1,1-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010		
1,1-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010		
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30		2	3/17/2010		
1,2,4-Trimethylbenzene	2.4	1.0	12	4.9	D1	2	3/17/2010		
1,2-Dibromoethane	< 1.0	1.0	< 7.7	7.7		2	3/17/2010		
1,2-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010		
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010		
1,2-Dichloropropane	< 1.0	1.0	< 4.6	4.6		2	3/17/2010		
1,3,5-Trimethylbenzene	2.2	1.0	11	4.9	D1	2	3/17/2010		
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2		2	3/17/2010		
1,3-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010		
1,4-Dichlorobenzene	< 1.0	1.0	< 6.0	6.0		2	3/17/2010		
1,4-Dioxane	< 4.0	4.0	< 14	14		2	3/17/2010		
2,2,4-Trimethylpentane	1.1	1.0	5.1	4.7	D1	2	3/17/2010		
2-Butanone (MEK)	< 2.0	2.0	< 5.9	5.9		2	3/17/2010		
2-Hexanone	< 2.0	2.0	< 8.2	8.2		2	3/17/2010		
2-Propanol (IPA)	< 4.0	4.0	< 10	10		2	3/17/2010		
4-Ethyltoluene	< 1.0	1.0	< 4.9	4.9		2	3/17/2010		
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	< 8.2	8.2		2	3/17/2010		
Acetone	15	10	36	24	D1	2	3/17/2010		
Allyl chloride	< 1.0	1.0	< 3.1	3.1		2	3/17/2010		
Benzene	1.5	1.0	4.8	3.2	D1	2	3/17/2010		
Benzyl chloride	< 4.0	4.0	< 21	21		2	3/17/2010		
Bromodichloromethane	3.3	1.0	22	6.7	D1	2	3/17/2010		
Bromoethene (Vinyl Bromide)	< 1.0	1.0	< 4.4	4.4		2	3/17/2010		
Bromoform	< 1.0	1.0	< 10	10		2	3/17/2010		
Bromomethane	< 1.0	1.0	< 3.9	3.9		2	3/17/2010		
Carbon disulfide	2.6	1.0	8.1	3.1	D1	2	3/17/2010		
Carbon tetrachloride	< 1.0	1.0	< 6.3	6.3		2	3/17/2010		
Chlorobenzene	< 1.0	1.0	< 4.6	4.6		2	3/17/2010		
Chloroethane	< 1.0	1.0	< 2.6	2.6		2	3/17/2010		
Chloroform	9.2	1.0	45	4.9	D1	2	3/17/2010		
Chloromethane	8.5	2.0	18	4.1	D1	2	3/17/2010		
cis-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010		
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010		
Cyclohexane	< 1.0	1.0	< 3.4	3.4		2	3/17/2010		
Dibromochloromethane	< 1.0	1.0	< 8.5	8.5		2	3/17/2010		



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: 32

Client Sample ID: HI-SVMW9B-031210
Project Number: 1303.036
Collection: 3/12/2010
Matrix: SoilVapor

Analyses	ppbv		µg/M ³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR	TO-15						Analyst: JJ
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 10	10		2	3/17/2010
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.0	7.0		2	3/17/2010
Ethyl Acetate	< 1.0	1.0	< 3.6	3.6		2	3/17/2010
Ethylbenzene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Heptane	< 1.0	1.0	< 4.1	4.1		2	3/17/2010
Hexachlorobutadiene	< 2.0	2.0	< 21	21		2	3/17/2010
Hexane	1.4	1.0	4.9	3.5	D1	2	3/17/2010
m&p-Xylene	3.9	2.0	17	8.7	D1	2	3/17/2010
Methyl tert-butyl ether	< 2.0	2.0	< 7.2	7.2		2	3/17/2010
Methylene chloride	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
o-Xylene	2.0	1.0	8.7	4.3	D1	2	3/17/2010
Propene (Propylene)	< 1.0	1.0	< 1.7	1.7		2	3/17/2010
Styrene	< 1.0	1.0	< 4.3	4.3		2	3/17/2010
Tetrachloroethene	24	1.0	163	6.8	D1	2	3/17/2010
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	3/17/2010
Toluene	13	1.0	49	3.8	D1	2	3/17/2010
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	3/17/2010
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.5	4.5		2	3/17/2010
Trichloroethene	< 1.0	1.0	< 5.4	5.4		2	3/17/2010
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.6	5.6		2	3/17/2010
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.7	7.7		2	3/17/2010
Vinyl acetate	< 1.0	1.0	< 3.5	3.5		2	3/17/2010
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	3/17/2010
Surr: 4-Bromofluorobenzene	112	70-130	%REC				



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: LCS/LCSD 0315

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Pass/fail		RPD	Date Analyzed
								LCS	LCSD		
VOLATILE ORGANICS IN AIR	TO-15							70-130%	70-130%	<25%	Analyst: JJ
2 T Propene (Propylene)	11.5	114.5	10.4	104	10.0	10.0	ppbv				3/15/2010
3 T Dichlorodifluoromethane(F-12)	9.9	98.6	10.6	106	10.0	7.1	ppbv				3/15/2010
4 T Chloromethane	10.4	104	10.3	103	10.0	1.0	ppbv				3/15/2010
5 T Dichlorotetrafluoroethane(F-114)	10.1	101	10.4	104	10.0	3.2	ppbv				3/15/2010
6 T Vinyl Chloride	10.2	102	10.6	106	10.0	4.1	ppbv				3/15/2010
7 T 1,3-Butadiene	10.5	105	10.7	107	10.0	2.1	ppbv				3/15/2010
8 T Bromomethane	9.8	97.6	10.2	102	10.0	3.9	ppbv				3/15/2010
9 T Chloroethane	9.5	95.4	10.0	100	10.0	4.8	ppbv				3/15/2010
10 T Bromoethene(Vinyl Bromide)	10.1	101	10.1	101	10.0	0.1	ppbv				3/15/2010
11 T Trichlorofluoromethane (F-11)	9.3	92.7	9.2	91.9	10.0	0.9	ppbv				3/15/2010
12 T Acetone	10.7	107	11.1	111	10.0	3.7	ppbv				3/15/2010
13 T Isopropyl Alcohol (2-Propanol)	9.6	96.4	10.7	107	10.0	10.1	ppbv				3/15/2010
14 T 1,1-Dichloroethene	8.8	87.8	9.0	89.6	10.0	2.0	ppbv				3/15/2010
15 T Trichlorotrifluoroethane (F-113)	9.2	91.6	9.2	92.1	10.0	0.5	ppbv				3/15/2010
16 T Methylene Chloride	9.5	94.5	9.3	93.2	10.0	1.4	ppbv				3/15/2010
17 T Allyl Chloride	10.0	99.7	10.9	109	10.0	8.5	ppbv				3/15/2010
18 T Carbon disulfide	10.6	106	10.5	105	10.0	1.2	ppbv				3/15/2010
19 T trans-1,2-Dichloroethene	10.1	101	10.3	103	10.0	2.5	ppbv				3/15/2010
20 T Methyl tert-butyl ether	10.1	101	10.6	106	10.0	5.5	ppbv				3/15/2010
21 T 1,1-Dichloroethane	9.7	96.7	9.6	95.5	10.0	1.2	ppbv				3/15/2010
22 T Vinyl acetate	11.4	114	11.9	119	10.0	3.8	ppbv				3/15/2010
23 T 2-Butanone (MEK)	9.0	89.8	9.2	92.2	10.0	2.6	ppbv				3/15/2010
24 T Hexane	11.5	115	11.5	115	10.0	0.0	ppbv				3/15/2010
25 T cis-1,2-Dichloroethene	9.9	98.9	9.7	97.3	10.0	1.6	ppbv				3/15/2010
26 T Ethyl Acetate	11.1	111	11.2	112	10.0	0.8	ppbv				3/15/2010
27 T Chloroform	9.3	92.9	9.3	92.7	10.0	0.2	ppbv				3/15/2010
28 T Tetrahydrofuran	10.3	103	10.7	107	10.0	3.9	ppbv				3/15/2010

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Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: LCS/LCSD 0315

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	RPD	Unit	Pass/fail			Date Analyzed
								LCS	LCSD	RPD	
VOLATILE ORGANICS IN AIR	TO-15							70-130%	70-130%	<25%	
29 T 1,1,1-Trichloroethane	8.6	86.1	8.6	85.6	10.0	0.6	ppbv				3/15/2010
30 T 1,2-Dichloroethane	9.3	92.9	9.2	92.0	10.0	1.0	ppbv				3/15/2010
31 T Benzene	10.8	108	10.9	109	10.0	0.8	ppbv				3/15/2010
32 T Carbon tetrachloride	9.5	94.8	9.2	92.3	10.0	2.7	ppbv				3/15/2010
33 T Cyclohexane	11.2	112	11.0	110	10.0	2.0	ppbv				3/15/2010
35 T 2,2,4-Trimethylpentane	10.5	105	10.3	103	10.0	2.1	ppbv				3/15/2010
36 T Heptane	10.4	104	9.7	97.2	10.0	7.0	ppbv				3/15/2010
37 T 1,2-Dichloropropane	10.0	100	9.8	98.0	10.0	2.1	ppbv				3/15/2010
38 T Trichloroethene	9.0	89.7	8.7	86.7	10.0	3.4	ppbv				3/15/2010
39 T Bromodichloromethane	9.9	98.6	9.5	95.0	10.0	3.7	ppbv				3/15/2010
40 T 1,4-Dioxane	8.7	87.3	8.7	86.6	10.0	0.8	ppbv				3/15/2010
41 T cis-1,3-Dichloropropene	10.7	107	10.0	100	10.0	6.3	ppbv				3/15/2010
42 T 4-methyl-2-pentanone	9.2	91.5	8.9	88.9	10.0	2.9	ppbv				3/15/2010
43 T trans-1,3-Dichloropropene	8.5	85.3	8.4	83.7	10.0	1.9	ppbv				3/15/2010
44 T Toluene	11.0	110	10.5	105	10.0	4.6	ppbv				3/15/2010
45 T 1,1,2-Trichloroethane	10.1	101	9.4	94.3	10.0	6.5	ppbv				3/15/2010
46 T 2-Hexanone	9.1	90.7	8.7	86.6	10.0	4.6	ppbv				3/15/2010
47 T Dibromochloromethane	10.5	105	9.9	98.7	10.0	5.8	ppbv				3/15/2010
48 T 1,2-Dibromoethane	10.1	101	9.4	94.1	10.0	7.4	ppbv				3/15/2010
49 T Tetrachloroethene	10.0	99.7	9.1	90.6	10.0	9.6	ppbv				3/15/2010
51 T Chlorobenzene	10.0	100	9.7	96.8	10.0	3.5	ppbv				3/15/2010
52 T Ethylbenzene	11.4	114	11.2	112	10.0	2.0	ppbv				3/15/2010
53 T m&p-Xylene	23.2	116	22.6	113	20.0	2.8	ppbv				3/15/2010
54 T Bromoform	12.3	123	11.9	119	10.0	3.6	ppbv				3/15/2010
55 T Styrene	10.5	105	10.2	102	10.0	2.9	ppbv				3/15/2010
56 T o-Xylene	11.9	119	11.3	113	10.0	4.9	ppbv				3/15/2010

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Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: LCS/LCSD 0315

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	LCS	LCS	LCSD	LCSD	T.V.	RPD	Unit	Pass/fail		RPD	Date Analyzed
	Result	%REC	Result	%REC				LCS	LCSD		
VOLATILE ORGANICS IN AIR	TO-15							70-130%	70-130%	<25%	
57 T 1,1,2,2-Tetrachloroethane	11.0	110	10.4	104	10.0	5.2	ppbv				3/15/2010
59 T 4-Ethyltoluene	10.5	105	10.0	99.6	10.0	5.6	ppbv				3/15/2010
60 T 1,3,5-Trimethylbenzene	12.4	124	11.7	117	10.0	6.1	ppbv				3/15/2010
61 T 1,2,4-Trimethylbenzene	10.5	105	10.1	101	10.0	4.3	ppbv				3/15/2010
62 T 1,3-Dichlorobenzene	12.5	125	11.7	117	10.0	6.7	ppbv				3/15/2010
63 T Benzyl chloride	10.1	101	9.7	97.0	10.0	4.3	ppbv				3/15/2010
64 T 1,4-Dichlorobenzene	12.7	127	11.7	117	10.0	7.8	ppbv				3/15/2010
65 T 1,2-Dichlorobenzene	12.4	124	11.5	115	10.0	7.3	ppbv				3/15/2010
66 T 1,2,4-Trichlorobenzene	9.7	96.8	9.3	92.9	10.0	4.1	ppbv				3/15/2010
67 T Hexachlorobutadiene	9.6	95.7	9.0	90.2	10.0	5.9	ppbv				3/15/2010
Surr: 4-Bromofluorobenzene	11.1	111	11.12	111			%REC				
		70-130%		70-130%							

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Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: LCS/LCSD 0316

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Pass/fail		RPD	Date Analyzed
								LCS	LCSD		
VOLATILE ORGANICS IN AIR	TO-15							70-130%	70-130%	<25%	Analyst: JJ
2 T Propene (Propylene)	7.1	71.1	7.1	71.3	10.0	0.3	ppbv				3/16/2010
3 T Dichlorodifluoromethane(F-12)	10.4	104	10.4	104	10.0	0.3	ppbv				3/16/2010
4 T Chloromethane	8.3	83.3	8.1	81.1	10.0	2.7	ppbv				3/16/2010
5 T Dichlorotetrafluoroethane(F-114)	8.5	85.0	8.3	83.1	10.0	2.3	ppbv				3/16/2010
6 T Vinyl Chloride	8.0	80.1	7.9	79.0	10.0	1.4	ppbv				3/16/2010
7 T 1,3-Butadiene	9.5	95.3	9.0	90.0	10.0	5.7	ppbv				3/16/2010
8 T Bromomethane	7.9	78.6	7.9	79.0	10.0	0.5	ppbv				3/16/2010
9 T Chloroethane	7.8	78.4	7.9	78.7	10.0	0.4	ppbv				3/16/2010
10 T Bromoethene(Vinyl Bromide)	8.6	85.6	8.5	85.2	10.0	0.5	ppbv				3/16/2010
11 T Trichlorofluoromethane (F-11)	8.5	85.0	8.7	87.3	10.0	2.7	ppbv				3/16/2010
12 T Acetone	9.0	90.2	9.3	92.5	10.0	2.5	ppbv				3/16/2010
13 T Isopropyl Alcohol (2-Propanol)	10.8	108	11.3	113	10.0	4.4	ppbv				3/16/2010
14 T 1,1-Dichloroethene	9.7	96.6	9.7	96.9	10.0	0.3	ppbv				3/16/2010
15 T Trichlorotrifluoroethane (F-113)	9.4	94.2	9.8	98.2	10.0	4.2	ppbv				3/16/2010
16 T Methylene Chloride	7.4	74.2	7.8	77.6	10.0	4.5	ppbv				3/16/2010
17 T Allyl Chloride	9.4	94.1	10.1	101	10.0	7.4	ppbv				3/16/2010
18 T Carbon disulfide	9.4	93.5	9.9	99.4	10.0	6.1	ppbv				3/16/2010
19 T trans-1,2-Dichloroethene	10.0	99.8	10.6	106	10.0	5.6	ppbv				3/16/2010
20 T Methyl tert-butyl ether	11.8	118	12.8	128	10.0	7.8	ppbv				3/16/2010
21 T 1,1-Dichloroethane	9.2	92.4	9.6	95.9	10.0	3.7	ppbv				3/16/2010
22 T Vinyl acetate	9.5	95.4	10.3	103	10.0	7.8	ppbv				3/16/2010
23 T 2-Butanone (MEK)	9.0	89.5	9.7	96.9	10.0	7.9	ppbv				3/16/2010
24 T Hexane	9.6	95.9	10.1	101	10.0	4.7	ppbv				3/16/2010
25 T cis-1,2-Dichloroethene	9.7	96.7	10.2	102	10.0	5.5	ppbv				3/16/2010
26 T Ethyl Acetate	10.0	100	11.0	110	10.0	9.2	ppbv				3/16/2010
27 T Chloroform	10.8	108	11.1	111	10.0	3.1	ppbv				3/16/2010
28 T Tetrahydrofuran	8.1	81.2	9.2	91.5	10.0	11.9	ppbv				3/16/2010

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Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: LCS/LCSD 0316

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	LCS	LCS	LCSD	LCSD	T.V.	RPD	Unit	Pass/fail			Date Analyzed
	Result	%REC	Result	%REC				LCS	LCSD	RPD	
VOLATILE ORGANICS IN AIR	TO-15							70-130%	70-130%	<25%	
29 T 1,1,1-Trichloroethane	11.3	113	11.4	114	10.0	0.6	ppbv				3/16/2010
30 T 1,2-Dichloroethane	12.7	127	12.5	125	10.0	1.7	ppbv				3/16/2010
31 T Benzene	9.6	95.8	10.2	102	10.0	5.9	ppbv				3/16/2010
32 T Carbon tetrachloride	12.1	121	12.0	120	10.0	0.1	ppbv				3/16/2010
33 T Cyclohexane	9.1	90.6	9.6	96.0	10.0	5.8	ppbv				3/16/2010
35 T 2,2,4-Trimethylpentane	9.3	92.9	9.1	91.3	10.0	1.7	ppbv				3/16/2010
36 T Heptane	10.5	105	9.8	98.1	10.0	6.7	ppbv				3/16/2010
37 T 1,2-Dichloropropane	8.7	86.6	8.7	87.4	10.0	0.9	ppbv				3/16/2010
38 T Trichloroethene	9.7	97.1	9.6	95.7	10.0	1.5	ppbv				3/16/2010
39 T Bromodichloromethane	12.3	123	11.9	119	10.0	3.5	ppbv				3/16/2010
40 T 1,4-Dioxane	10.8	108	11.5	115	10.0	6.0	ppbv				3/16/2010
41 T cis-1,3-Dichloropropene	11.1	111	11.1	111	10.0	0.5	ppbv				3/16/2010
42 T 4-methyl-2-pentanone	9.2	91.9	9.3	92.7	10.0	0.9	ppbv				3/16/2010
43 T trans-1,3-Dichloropropene	10.2	102	10.1	101	10.0	0.3	ppbv				3/16/2010
44 T Toluene	10.8	108	11.0	110	10.0	1.6	ppbv				3/16/2010
45 T 1,1,2-Trichloroethane	10.1	101	10.3	103	10.0	2.5	ppbv				3/16/2010
46 T 2-Hexanone	9.2	92.2	9.3	93.4	10.0	1.3	ppbv				3/16/2010
47 T Dibromochloromethane	12.4	124	12.1	121	10.0	2.9	ppbv				3/16/2010
48 T 1,2-Dibromoethane	10.9	109	11.0	110	10.0	0.6	ppbv				3/16/2010
49 T Tetrachloroethene	10.9	109	10.7	107	10.0	2.1	ppbv				3/16/2010
51 T Chlorobenzene	10.1	101	10.4	104	10.0	3.2	ppbv				3/16/2010
52 T Ethylbenzene	11.1	111	11.6	116	10.0	5.0	ppbv				3/16/2010
53 T m&p-Xylene	21.8	109	22.8	114	20.0	4.5	ppbv				3/16/2010
54 T Bromoform	11.9	119	12.1	121	10.0	0.9	ppbv				3/16/2010
55 T Styrene	9.5	95.2	10.2	102	10.0	6.8	ppbv				3/16/2010
56 T o-Xylene	10.9	109	11.5	115	10.0	5.9	ppbv				3/16/2010

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Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: LCS/LCSD 0316

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	LCS	LCS	LCSD	LCSD	T.V.	RPD	Unit	Pass/fail			Date Analyzed
	Result	%REC	Result	%REC				LCS	LCSD	RPD	
VOLATILE ORGANICS IN AIR	TO-15							70-130%	70-130%	<25%	
57 T 1,1,2,2-Tetrachloroethane	9.1	90.8	9.8	97.8	10.0	7.4	ppbv				3/16/2010
59 T 4-Ethyltoluene	10.1	101	10.7	107	10.0	5.5	ppbv				3/16/2010
60 T 1,3,5-Trimethylbenzene	11.9	119	12.5	125	10.0	5.1	ppbv				3/16/2010
61 T 1,2,4-Trimethylbenzene	10.2	102	10.7	107	10.0	5.1	ppbv				3/16/2010
62 T 1,3-Dichlorobenzene	10.9	109	11.1	111	10.0	2.4	ppbv				3/16/2010
63 T Benzyl chloride	9.8	98.1	10.1	101	10.0	3.2	ppbv				3/16/2010
64 T 1,4-Dichlorobenzene	10.9	109	11.1	111	10.0	2.0	ppbv				3/16/2010
65 T 1,2-Dichlorobenzene	10.9	109	11.2	112	10.0	2.7	ppbv				3/16/2010
66 T 1,2,4-Trichlorobenzene	11.5	115	11.4	114	10.0	1.1	ppbv				3/16/2010
67 T Hexachlorobutadiene	12.3	123	12.2	122	10.0	0.4	ppbv				3/16/2010
Surr: 4-Bromofluorobenzene	10.7	107	10.3	103			%REC				
		70-130%		70-130%							

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Airtech Environmental Laboratories (AEL) - AZ 0740

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: LCS/LCSD 0323

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	LCS	LCS	LCSD	LCSD	T.V.	%RPD	Unit	Pass/fail	LCSD	RPD	Date Analyzed
	Result	%REC	Result	%REC				LCS			
VOLATILE ORGANICS IN AIR	TO-15							70-130%	70-130%	<25%	Analyst: JJ
12 T Acetone	10.4	104.2	10.1	101.1	10.0	3.0	ppbv				3/23/2010
Surr: 4-Bromofluorobenzene	11.3	113	11.29	113			%REC				
		70-130%		70-130%							

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: Blank 0315

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	Result	Limit	Unit	Qual	DF	Date Analyzed
VOLATILE ORGANICS IN AIR	TO-15					Analyst: JJ
1,1,1-Trichloroethane	< 0.5	0.5	ppbv		1	3/15/2010
1,1,2,2-Tetrachloroethane	< 0.5	0.5	ppbv		1	3/15/2010
1,1,2-Trichloroethane	< 0.5	0.5	ppbv		1	3/15/2010
1,1-Dichloroethane	< 0.5	0.5	ppbv		1	3/15/2010
1,1-Dichloroethene	< 0.5	0.5	ppbv		1	3/15/2010
1,2,4-Trichlorobenzene	< 2.0	2.0	ppbv		1	3/15/2010
1,2,4-Trimethylbenzene	< 0.5	0.5	ppbv		1	3/15/2010
1,2-Dibromoethane	< 0.5	0.5	ppbv		1	3/15/2010
1,2-Dichlorobenzene	< 0.5	0.5	ppbv		1	3/15/2010
1,2-Dichloroethane	< 0.5	0.5	ppbv		1	3/15/2010
1,2-Dichloropropane	< 0.5	0.5	ppbv		1	3/15/2010
1,3,5-Trimethylbenzene	< 0.5	0.5	ppbv		1	3/15/2010
1,3-Butadiene	< 0.5	0.5	ppbv		1	3/15/2010
1,3-Dichlorobenzene	< 0.5	0.5	ppbv		1	3/15/2010
1,4-Dichlorobenzene	< 0.5	0.5	ppbv		1	3/15/2010
1,4-Dioxane	< 2.0	2.0	ppbv		1	3/15/2010
2,2,4-Trimethylpentane	< 0.5	0.5	ppbv		1	3/15/2010
2-Butanone (MEK)	< 1.0	1.0	ppbv		1	3/15/2010
2-Hexanone	< 1.0	1.0	ppbv		1	3/15/2010
2-Propanol (IPA)	< 2.0	2.0	ppbv		1	3/15/2010
4-Ethyltoluene	< 0.5	0.5	ppbv		1	3/15/2010
4-Methyl-2-pentanone (MIBK)	< 1.0	1.0	ppbv		1	3/15/2010
Acetone	< 5.0	5.0	ppbv		1	3/15/2010
Allyl chloride	< 0.5	0.5	ppbv		1	3/15/2010
Benzene	< 0.5	0.5	ppbv		1	3/15/2010
Benzyl chloride	< 2.0	2.0	ppbv		1	3/15/2010
Bromodichloromethane	< 0.5	0.5	ppbv		1	3/15/2010
Bromoethene(Vinyl Bromide)	< 0.5	0.5	ppbv		1	3/15/2010
Bromoform	< 0.5	0.5	ppbv		1	3/15/2010
Bromomethane	< 0.5	0.5	ppbv		1	3/15/2010
Carbon disulfide	< 0.5	0.5	ppbv		1	3/15/2010
Carbon tetrachloride	< 0.5	0.5	ppbv		1	3/15/2010
Chlorobenzene	< 0.5	0.5	ppbv		1	3/15/2010
Chloroethane	< 0.5	0.5	ppbv		1	3/15/2010
Chloroform	< 0.5	0.5	ppbv		1	3/15/2010
Chloromethane	< 1.0	1.0	ppbv		1	3/15/2010
cis-1,2-Dichloroethene	< 0.5	0.5	ppbv		1	3/15/2010
cis-1,3-Dichloropropene	< 0.5	0.5	ppbv		1	3/15/2010
Cyclohexane	< 0.5	0.5	ppbv		1	3/15/2010
Dibromochloromethane	< 0.5	0.5	ppbv		1	3/15/2010

**Airtech Environmental Laboratories - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: Blank 0315

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	Result	Limit	Unit	Qual	DF	Date Analyzed
VOLATILE ORGANICS IN AIR	TO-15					Analyst: JJ
Dichlorodifluoromethane(F-12)	< 1.0	1.0	ppbv		1	3/15/2010
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	ppbv		1	3/15/2010
Ethyl Acetate	< 0.5	0.5	ppbv		1	3/15/2010
Ethylbenzene	< 0.5	0.5	ppbv		1	3/15/2010
Heptane	< 0.5	0.5	ppbv		1	3/15/2010
Hexachlorobutadiene	< 1.0	1.0	ppbv		1	3/15/2010
Hexane	< 0.5	0.5	ppbv		1	3/15/2010
m&p-Xylene	< 1.0	1.0	ppbv		1	3/15/2010
Methyl tert-butyl ether	< 1.0	1.0	ppbv		1	3/15/2010
Methylene chloride	< 0.5	0.5	ppbv		1	3/15/2010
o-Xylene	< 0.5	0.5	ppbv		1	3/15/2010
Propene (Propylene)	< 0.5	0.5	ppbv		1	3/15/2010
Styrene	< 0.5	0.5	ppbv		1	3/15/2010
Tetrachloroethene	< 0.5	0.5	ppbv		1	3/15/2010
Tetrahydrofuran	< 2.0	2.0	ppbv		1	3/15/2010
Toluene	< 0.5	0.5	ppbv		1	3/15/2010
trans-1,2-Dichloroethene	< 0.5	0.5	ppbv		1	3/15/2010
trans-1,3-Dichloropropene	< 0.5	0.5	ppbv		1	3/15/2010
Trichloroethene	< 0.5	0.5	ppbv		1	3/15/2010
Trichlorofluoromethane(F-11)	< 0.5	0.5	ppbv		1	3/15/2010
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	ppbv		1	3/15/2010
Vinyl acetate	< 0.5	0.5	ppbv		1	3/15/2010
Vinyl chloride	< 0.5	0.5	ppbv		1	3/15/2010
Surr: 4-Bromofluorobenzene	90.3	70-130	%REC			

**Airtech Environmental Laboratories (AEL) - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: Blank 0316

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	Result	Limit	Unit	Qual	DF	Date Analyzed
VOLATILE ORGANICS IN AIR	TO-15					Analyst: JJ
1,1,1-Trichloroethane	< 0.5	0.5	ppbv		1	3/16/2010
1,1,2,2-Tetrachloroethane	< 0.5	0.5	ppbv		1	3/16/2010
1,1,2-Trichloroethane	< 0.5	0.5	ppbv		1	3/16/2010
1,1-Dichloroethane	< 0.5	0.5	ppbv		1	3/16/2010
1,1-Dichloroethene	< 0.5	0.5	ppbv		1	3/16/2010
1,2,4-Trichlorobenzene	< 2.0	2.0	ppbv		1	3/16/2010
1,2,4-Trimethylbenzene	< 0.5	0.5	ppbv		1	3/16/2010
1,2-Dibromoethane	< 0.5	0.5	ppbv		1	3/16/2010
1,2-Dichlorobenzene	< 0.5	0.5	ppbv		1	3/16/2010
1,2-Dichloroethane	< 0.5	0.5	ppbv		1	3/16/2010
1,2-Dichloropropane	< 0.5	0.5	ppbv		1	3/16/2010
1,3,5-Trimethylbenzene	< 0.5	0.5	ppbv		1	3/16/2010
1,3-Butadiene	< 0.5	0.5	ppbv		1	3/16/2010
1,3-Dichlorobenzene	< 0.5	0.5	ppbv		1	3/16/2010
1,4-Dichlorobenzene	< 0.5	0.5	ppbv		1	3/16/2010
1,4-Dioxane	< 2.0	2.0	ppbv		1	3/16/2010
2,2,4-Trimethylpentane	< 0.5	0.5	ppbv		1	3/16/2010
2-Butanone (MEK)	< 1.0	1.0	ppbv		1	3/16/2010
2-Hexanone	< 1.0	1.0	ppbv		1	3/16/2010
2-Propanol (IPA)	< 2.0	2.0	ppbv		1	3/16/2010
4-Ethyltoluene	< 0.5	0.5	ppbv		1	3/16/2010
4-Methyl-2-pentanone (MIB)	< 1.0	1.0	ppbv		1	3/16/2010
Acetone	< 5.0	5.0	ppbv		1	3/16/2010
Allyl chloride	< 0.5	0.5	ppbv		1	3/16/2010
Benzene	< 0.5	0.5	ppbv		1	3/16/2010
Benzyl chloride	< 2.0	2.0	ppbv		1	3/16/2010
Bromodichloromethane	< 0.5	0.5	ppbv		1	3/16/2010
Bromoethene(Vinyl Bromide)	< 0.5	0.5	ppbv		1	3/16/2010
Bromoform	< 0.5	0.5	ppbv		1	3/16/2010
Bromomethane	< 0.5	0.5	ppbv		1	3/16/2010
Carbon disulfide	< 0.5	0.5	ppbv		1	3/16/2010
Carbon tetrachloride	< 0.5	0.5	ppbv		1	3/16/2010
Chlorobenzene	< 0.5	0.5	ppbv		1	3/16/2010
Chloroethane	< 0.5	0.5	ppbv		1	3/16/2010
Chloroform	< 0.5	0.5	ppbv		1	3/16/2010
Chloromethane	< 1.0	1.0	ppbv		1	3/16/2010
cis-1,2-Dichloroethene	< 0.5	0.5	ppbv		1	3/16/2010
cis-1,3-Dichloropropene	< 0.5	0.5	ppbv		1	3/16/2010
Cyclohexane	< 0.5	0.5	ppbv		1	3/16/2010
Dibromochloromethane	< 0.5	0.5	ppbv		1	3/16/2010

**Airtech Environmental Laboratories - AZ 0740**

Date: March 24, 2010

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: Blank 0316

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	Result	Limit	Unit	Qual	DF	Date Analyzed
VOLATILE ORGANICS IN AIR	TO-15					Analyst: JJ
Dichlorodifluoromethane(F-12)	< 1.0	1.0	ppbv		1	3/16/2010
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	ppbv		1	3/16/2010
Ethyl Acetate	< 0.5	0.5	ppbv		1	3/16/2010
Ethylbenzene	< 0.5	0.5	ppbv		1	3/16/2010
Heptane	< 0.5	0.5	ppbv		1	3/16/2010
Hexachlorobutadiene	< 1.0	1.0	ppbv		1	3/16/2010
Hexane	< 0.5	0.5	ppbv		1	3/16/2010
m&p-Xylene	< 1.0	1.0	ppbv		1	3/16/2010
Methyl tert-butyl ether	< 1.0	1.0	ppbv		1	3/16/2010
Methylene chloride	< 0.5	0.5	ppbv		1	3/16/2010
o-Xylene	< 0.5	0.5	ppbv		1	3/16/2010
Propene (Propylene)	< 0.5	0.5	ppbv		1	3/16/2010
Styrene	< 0.5	0.5	ppbv		1	3/16/2010
Tetrachloroethene	< 0.5	0.5	ppbv		1	3/16/2010
Tetrahydrofuran	< 2.0	2.0	ppbv		1	3/16/2010
Toluene	< 0.5	0.5	ppbv		1	3/16/2010
trans-1,2-Dichloroethene	< 0.5	0.5	ppbv		1	3/16/2010
trans-1,3-Dichloropropene	< 0.5	0.5	ppbv		1	3/16/2010
Trichloroethene	< 0.5	0.5	ppbv		1	3/16/2010
Trichlorofluoromethane(F-11)	< 0.5	0.5	ppbv		1	3/16/2010
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	ppbv		1	3/16/2010
Vinyl acetate	< 0.5	0.5	ppbv		1	3/16/2010
Vinyl chloride	< 0.5	0.5	ppbv		1	3/16/2010
Surr: 4-Bromofluorobenzene	92	70-130	%REC			



Airtech Environmental Laboratories (AEL) - AZ 0740

Date: #REF!

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: Blank 0323

Client Sample ID:
Tag Number:
Collection:
Matrix:

Analyses	Result	Limit	Unit	Qual	DF	Date Analyzed
VOLATILE ORGANICS IN AIR	TO-15					Analyst: JJ
Acetone	< 5.0	5.0	ppbv		1	3/23/2010
Surr: 4-Bromofluorobenzene	114	70-130	%REC			



Client Sample ID:
Project Number:
Collection:
Matrix:

Phone: 480-968-5888, Fax: 480-966-1888



Airtech Environmental Laboratories (AEL) - AZ 0740

Client: Geotrans, Inc
 Project: 20th & Factor
 Lab Order: 1003104
 Lab ID: Sampling Kits QC

Client Sample ID:
 Tag Number:
 Collection:
 Matrix:

		Canister				Time Integrated Sampler				Grab Sampler	
AEL#	Client ID			Vacuum before sampled	Vacuum after sampled			Cal. Flow Rate before sampled	Flow Rate after sampled		
		SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#	ml/min	ml/min	SN#	Clean Batch#
1003104-01	HI-SVMW2A-030810	1830	1002-01	29.5	14.62					073	0912-02
1003104-02	HI-SVMW2B-030810	1838	1002-01	29.5	14.50					066	1002-01
1003104-03	HI-SVMW6A-030810	1844	1002-03	29.1	14.76					025	1002-03
1003104-04	HI-SVMW6B-030810	1813	1002-03	29.1	14.68					076	1002-03
1003104-05	HI-SVMW7B-030810	1818	1002-04	29.0	15.10					089	0912-02
1003104-06	HI-SVMW7A-030810	1850	1002-05	29.1	15.08					080	1002-03
1003104-07	HI-SVMW5A-030910	1831	1002-05	29.1	15.39					082	1002-01
1003104-08	HI-SVMW5B-030910	1852	1002-04	29.0	15.36					040	1002-03
1003104-09	HI-SVMW3A-030910	1869	1002-01	29.5	14.82					034	0911-03
1003104-10	HI-SVMW3B-030910	1857	1002-01	29.5	14.92					060	1002-01
1003104-11	HI-SVMW12A-030910	1835	1002-01	29.5	13.18					041	0911-03
1003104-12	HI-SVMW12B-030910	0197	1002-01	29.4	14.38					075	1002-01
1003104-13	HI-SVMW11A-030910	1800	1002-01	29.4	14.94					081	1002-01
1003104-14	HI-SVMW11B-030910	1867	1002-01	29.4	15.15					072	1002-01
1003104-15	HI-SVMW4A-031010	0223	1002-01	29.4	15.74					088	0912-02
1003104-16	HI-SVMW4B-031010	1876	1002-02	29.4	15.78					056	1002-01
1003104-17	HI-SVMW8-5-031010	1866	1002-01	29.5	15.03					067	1002-01
1003104-18	HI-SVMW8-10-031010	1853	1002-02	29.3	14.67					026	0911-03
1003104-19	HI-SVMW8-20-031010	1816	1002-05	29.1	14.53					068	1002-03
1003104-20	HI-SVMW8-30-031010	1871	1002-04	29.1	14.54					085	1002-03
1003104-21	HI-SVMW8-40-031010	1843	1002-04	29.0	14.41					087	1002-03
1003104-22	HI-SVMW8-50-031010	1808	1003-03	29.2	14.38					058	1001-02
1003104-23	HI-SVMW8-60-031110	1812	1002-05	29.1	15.39					032	0911-03
1003104-24	HI-SVMW8-70-031110	1790	1002-04	29.1	15.37					044	0911-03



Airtech Environmental Laboratories (AEL) - AZ 0740

Client: Geotrans, Inc
Project: 20th & Factor
Lab Order: 1003104
Lab ID: Sampling Kits QC

Client Sample ID:
Tag Number:
Collection:
Matrix:

		Canister				Time Integrated Sampler				Grab Sampler	
AEL#	Client ID	SN#	Clean Batch#	Vacuum before sampled	Vacuum after sampled	SN#	Clean Batch#	Cal. Flow Rate before sampled	Flow Rate after sampled	SN#	Clean Batch#
				Hg inch	psia			ml/min	ml/min		
1003104-25	HI-SVMW1-20-031110	1854	1003-03	29.1	14.86					006	0911-03
1003104-26	HI-SVMW1-35-031110	1873	1002-03	28.9	14.87					057	1002-03
1003104-27	HI-SVMW1-50-031110	1817	1002-04	29.0	14.73					063	1002-03
1003104-28	HI-SVMW1-65-031110	0743	1002-04	29.0	14.75					083	1002-01
1003104-29	HI-SVMW10A-031110	1810	1002-05	29.0	14.57					053	1002-03
1003104-30	HI-SVMW10B-031110	1806	1002-04	29.0	14.73					078	0912-02
1003104-31	HI-SVMW9A-031210	0265	1002-05	29.2	15.58					055	1002-01
1003104-32	HI-SVMW9B-031210	0272	1002-05	29.2	15.60					054	1002-03

I Introduction

II Team Organization

III Staff & Qualifications

IV Project Experience

V Knowledge of Regulations and Statutes

V Company Stability

March 18, 2010

LABORATORY REPORT

Client:

GeoTrans

4801 E. Washington St. Suite 260

Phoenix, AZ 85034

Attn: Jasenka Zbozinek

Work Order: PTC0695

Project Name: ADEQ Yuma

Project Number: 20th & Factor WQARF / 1303.036

Date Received: 03/12/10

Final Report: 03/18/10 10:22

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica.

TestAmerica Laboratories, Inc., Phoenix Laboratory certifies that the analytical results contained herein apply only to the specific sample(s) analyzed.

This entire report was reviewed and approved for release.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(602)437-3340

Analyses included in this report were performed by the laboratory shown at the top of this report unless otherwise indicated.

CASE NARRATIVE: SAMPLE RECEIPT: Samples were received intact, at 26.2°C and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

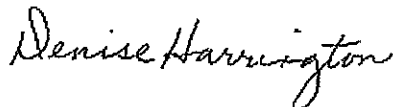
PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

Approved By:



Denise Harrington
Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189 Phoenix, AZ 85040 • (602) 437-3340 • Fax (602) 454-9303

GeoTrans
4801 E. Washington St. Suite 260
Phoenix, AZ 85034
Jasenka Zbozinek

Work Order: PTC0695
Project: ADEQ Yuma
Project Number: 20th & Factor WQARF / 1303.036

Received: 03/12/10
Reported: 03/18/10 10:22

SAMPLE IDENTIFICATION

LAB NUMBER

COLLECTION DATE

CONTAINER TYPE

HI-SVMW2A-030810	PTC0695-01	03/08/10	Soda Lime tube, 200/400 mg
HI-SVMW2B-030810	PTC0695-02	03/08/10	Soda Lime tube, 200/400 mg
HI-SVMW6A-030810	PTC0695-03	03/08/10	Soda Lime tube, 200/400 mg
HI-SVMW6B-030810	PTC0695-04	03/08/10	Soda Lime tube, 200/400 mg
HI-SVMW7A-030810	PTC0695-05	03/08/10	Soda Lime tube, 200/400 mg
HI-SVMW7B-030810	PTC0695-06	03/08/10	Soda Lime tube, 200/400 mg
HI-SVMW5A-030910	PTC0695-07	03/09/10	Soda Lime tube, 200/400 mg
HI-SVMW5B-030910	PTC0695-08	03/09/10	Soda Lime tube, 200/400 mg
HI-SVMW3A-030910	PTC0695-09	03/09/10	Soda Lime tube, 200/400 mg
HI-SVMW3B-030910	PTC0695-10	03/09/10	Soda Lime tube, 200/400 mg
HI-SVMW12A-030910	PTC0695-11	03/09/10	Soda Lime tube, 200/400 mg
HI-SVMW12B-030910	PTC0695-12	03/09/10	Soda Lime tube, 200/400 mg
HI-SVMW11A-030910	PTC0695-13	03/09/10	Soda Lime tube, 200/400 mg
HI-SVMW11B-030910	PTC0695-14	03/09/10	Soda Lime tube, 200/400 mg
HI-SVMW4A-031010	PTC0695-15	03/10/10	Soda Lime tube, 200/400 mg
HI-SVMW4B-031010	PTC0695-16	03/10/10	Soda Lime tube, 200/400 mg
HI-SVMW8-5-031010	PTC0695-17	03/10/10	Soda Lime tube, 200/400 mg
HI-SVMW8-10-031010	PTC0695-18	03/10/10	Soda Lime tube, 200/400 mg
HI-SVMW8-20-031010	PTC0695-19	03/10/10	Soda Lime tube, 200/400 mg
HI-SVMW8-30-031010	PTC0695-20	03/10/10	Soda Lime tube, 200/400 mg
HI-SVMW8-40-031010	PTC0695-21	03/10/10	Soda Lime tube, 200/400 mg
HI-SVMW8-50-031010	PTC0695-22	03/10/10	Soda Lime tube, 200/400 mg
HI-SVMW8-60-031110	PTC0695-23	03/11/10	Soda Lime tube, 200/400 mg
HI-SVMW8-70-031110	PTC0695-24	03/11/10	Soda Lime tube, 200/400 mg
HI-SVMW1-20-031110	PTC0695-25	03/11/10	Soda Lime tube, 200/400 mg
HI-SVMW1-35-031110	PTC0695-26	03/11/10	Soda Lime tube, 200/400 mg
HI-SVMW1-50-031110	PTC0695-27	03/11/10	Soda Lime tube, 200/400 mg
HI-SVMW1-65-031110	PTC0695-28	03/11/10	Soda Lime tube, 200/400 mg
HI-SVMW10A-031110	PTC0695-29	03/11/10	Soda Lime tube, 200/400 mg
HI-SVMW10B-031110	PTC0695-30	03/11/10	Soda Lime tube, 200/400 mg
HI-SVMW9A-031210	PTC0695-31	03/12/10	Soda Lime tube, 200/400 mg
HI-SVMW9B-031210	PTC0695-32	03/12/10	Soda Lime tube, 200/400 mg

GeoTrans
4801 E. Washington St. Suite 260
Phoenix, AZ 85034
Jasenska Zbozinek

Work Order: PTC0695
Project: ADEQ Yuma
Project Number: 20th & Factor WQARF / 1303.036

Received: 03/12/10
Reported: 03/18/10 10:22

ANALYTICAL REPORT

Analyte	Result	Qual	Date Analyzed	Analyst	Rpt Limit (ug, Total)	Method
Hydrogen Cyanide by NIOSH 6010						
Sample ID: PTC0695-01 (HI-SVMW2A-030810)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-02 (HI-SVMW2B-030810)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-03 (HI-SVMW6A-030810)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-04 (HI-SVMW6B-030810)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-05 (HI-SVMW7A-030810)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-06 (HI-SVMW7B-030810)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-07 (HI-SVMW5A-030910)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-08 (HI-SVMW5B-030910)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-09 (HI-SVMW3A-030910)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-10 (HI-SVMW3B-030910)						
	ug, Total	mg/m3	ppm			

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Work Order: PTC0695
Project: ADEQ Yuma
Project Number: 20th & Factor WQARF / 1303.036

Received: 03/12/10
Reported: 03/18/10 10:22

Analyte	Result	Qual	Date Analyzed	Analyst	Rpt Limit (ug, Total)	Method
Hydrogen Cyanide by NIOSH 6010 - cont.						
Sample ID: PTC0695-10 (HI-SVMW3B-030910) - cont.						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-11 (HI-SVMW12A-030910)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-12 (HI-SVMW12B-030910)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-13 (HI-SVMW11A-030910)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-14 (HI-SVMW11B-030910)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-15 (HI-SVMW4A-031010)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-16 (HI-SVMW4B-031010)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-17 (HI-SVMW8-5-031010)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-18 (HI-SVMW8-10-031010)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-19 (HI-SVMW8-20-031010)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	—	3/17/2010	ZN	0.212 NIOSH 6010

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Work Order: PTC0695
Project: ADEQ Yuma
Project Number: 20th & Factor WQARF / 1303.036

Received: 03/12/10
Reported: 03/18/10 10:22

Analyte	Result	Qual	Date Analyzed	Analyst	Rpt Limit (ug, Total)	Method
Hydrogen Cyanide by NIOSH 6010 - cont.						
Sample ID: PTC0695-20 (HI-SVMW8-30-031010)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-21 (HI-SVMW8-40-031010)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-22 (HI-SVMW8-50-031010)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-23 (HI-SVMW8-60-031110)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-24 (HI-SVMW8-70-031110)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-25 (HI-SVMW1-20-031110)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-26 (HI-SVMW1-35-031110)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-27 (HI-SVMW1-50-031110)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-28 (HI-SVMW1-65-031110)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-29 (HI-SVMW10A-031110)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010

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Work Order: PTC0695
Project: ADEQ Yuma
Project Number: 20th & Factor WQARF / 1303.036

Received: 03/12/10
Reported: 03/18/10 10:22

Analyte	Result	Qual	Date Analyzed	Analyst	Rpt Limit (ug, Total)	Method
Hydrogen Cyanide by NIOSH 6010 - cont.						
Sample ID: PTC0695-30 (HI-SVMW10B-031110)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-31 (HI-SVMW9A-031210)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010
Sample ID: PTC0695-32 (HI-SVMW9B-031210)						
	ug, Total	mg/m3	ppm			
Hydrogen Cyanide	<0.210	<0.007778	<0.007035	3/17/2010	ZN	0.210 NIOSH 6010
Hydrogen Cyanide-Particulate	<0.212	<0.007852	---	3/17/2010	ZN	0.212 NIOSH 6010

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Work Order: PTC0695
Project: ADEQ Yuma
Project Number: 20th & Factor WQARF / 1303.036

Received: 03/12/10
Reported: 03/18/10 10:22

PROJECT QUALITY CONTROL DATA

Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Target Range	Lab Number	Analyzed Date
Hydrogen Cyanide by NIOSH 6010							
10C0568-BLK1							
Hydrogen Cyanide-Particulate	<0.212		ug, Total	10C0568		10C0568-BLK1	03-17-2010
10C0569-BLK1							
Hydrogen Cyanide - Back	<0.210		ug, Total	10C0569		10C0569-BLK1	03-17-2010
Hydrogen Cyanide	<0.210		ug, Total	10C0569		10C0569-BLK1	03-17-2010

LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date
Hydrogen Cyanide by NIOSH 6010								
10C0569-BS1								
Hydrogen Cyanide	0.624	0.5772		ug, Total	93%	70-130	10C0569	03-17-2010

LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date
Hydrogen Cyanide by NIOSH 6010												
10C0569-BSD1												
Hydrogen Cyanide		0.6402		ug, Total	0.624	103%	70-130	10.3	30	10C0569		03-17-2010

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Work Order: PTC0695
Project: ADEQ Yuma
Project Number: 20th & Factor WQARF / 1303.036

Received: 03/12/10
Reported: 03/18/10 10:22

CERTIFICATION SUMMARY

Analyses included in this report were performed by TestAmerica Phoenix, 4625 E. Cotton Center Boulevard, Building 3, Suite 189, Phoenix, AZ 85040.

TestAmerica Phoenix (Lab ID 154268) is accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation for the following methods: NIOSH 0500, NIOSH 0600, NIOSH 1003, NIOSH 1005, NIOSH 1007, NIOSH 1010, NIOSH 1015, NIOSH 1022, NIOSH 1300, NIOSH 1400, NIOSH 1401, NIOSH 1403, NIOSH 1405, NIOSH 1450, NIOSH 1457, NIOSH 1500, NIOSH 1501, NIOSH 1550, NIOSH 1602, NIOSH 1604, NIOSH 1606, NIOSH 1609, NIOSH 1610, NIOSH 1611, NIOSH, 1613, NIOSH 1615, NIOSH 2000, NIOSH 2016, NIOSH 2532, NIOSH 2546, NIOSH 2551, NIOSH 5000, NIOSH 5503, NIOSH 5506, NIOSH 5600, NIOSH 6006, NIOSH 6009, NIOSH 6010, NIOSH 7300, NIOSH 7303, NIOSH 7600, NIOSH 7903, NIOSH 9100, NIOSH 9102, EPA IP-6A, EPA IP-6C, OSHA PV2120, OSHA 7, OSHA 42, OSHA 47, OSHA 48, OSHA 64, OSHA 69, OSHA 111, OSHA ID-140, OSHA ID-121, OSHA ID-125G, OSHA IS-215, OSHA 1001, OSHA 1002, OSHA 1003, OSHA 1004, OSHA 1005 and OSHA Chemical and Sampling Information for Silane. Volatile organic compounds on 3M Organic Vapor Monitors, Assay Technology Passive Monitors and SKC Passive Monitors. Formaldehyde and other aldehydes and ketones on Assay Technology Passive Monitor. Aldehydes and ketones by EPA TO-11A.

The TestAmerica Phoenix is also licensed through the State of Arizona (AZ0728) for EPA method TO-15.

TestAmerica Phoenix also holds NELAC accreditation through the State of Oregon (AZ100001) for the analytical techniques noted on the scope of accreditation and the State of New York (11898) for NIOSH 6009.

Samples were analyzed using methods outlined in references such as:

- OSHA - Occupational Safety and Health Administration, U. S. Department of Labor, OSHA Analytical Methods Manual.
- NIOSH - National Institute for Occupational Safety and Health, U. S. Department of Health and Human Services, NIOSH Manual of Analytical Methods, Fourth Edition, 1994, and Updates. NIOSH Method 7300 analyses are performed using a modified digestion procedure to eliminate the use of perchloric acid.
- EPA - U. S. Environmental Protection Agency, Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, 1999.
- EPA - U. S. Environmental Protection Agency, Analytical Methods, Emission Measurement Center (EMC).

Analytical Comments:

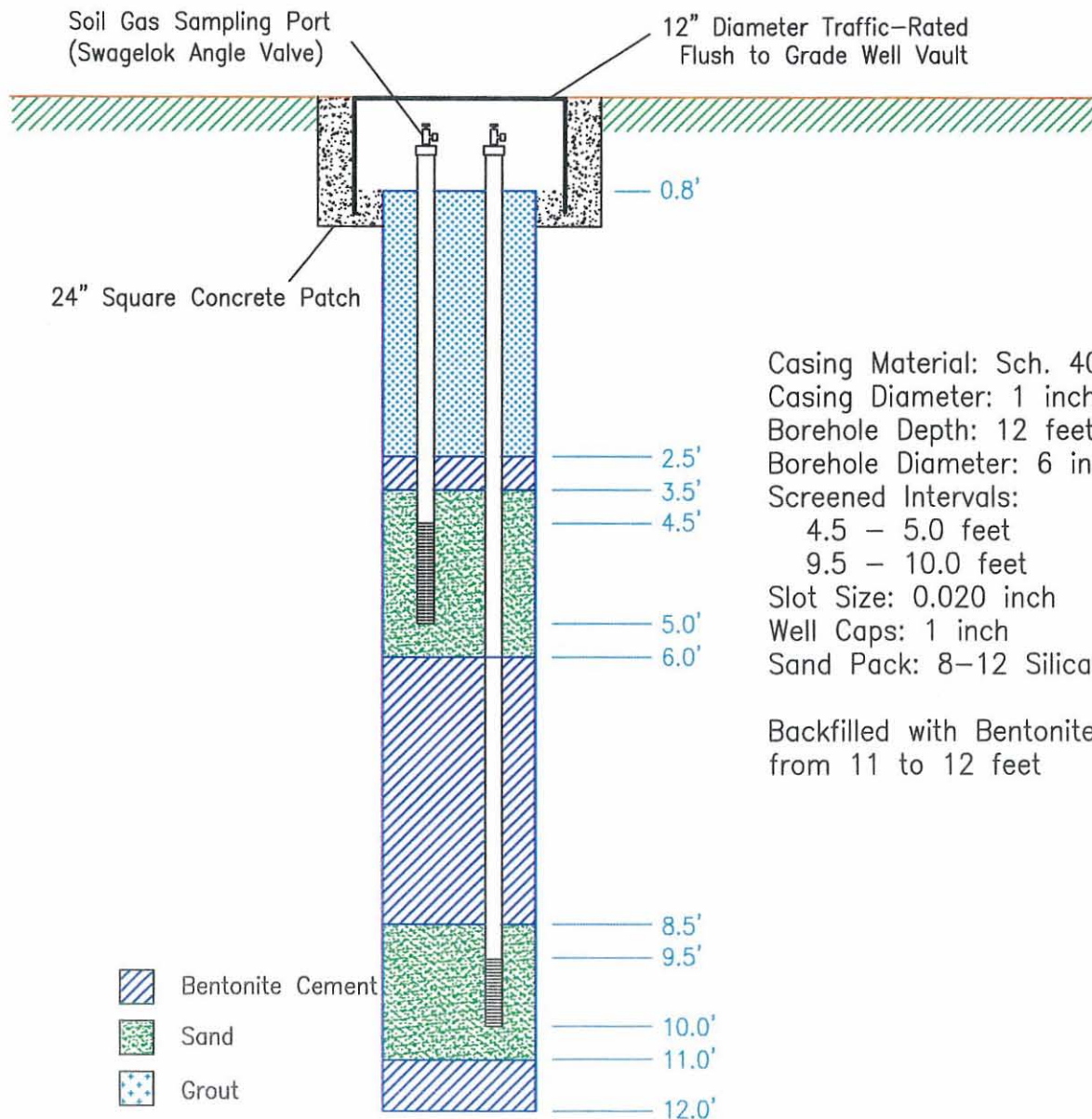
Unless otherwise noted, all method blanks and laboratory control spikes met method and/or laboratory quality control objectives for the analyses included in this report.

Unless otherwise noted, sample results have been corrected for method blank values.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

APPENDIX B

Soil Vapor Monitoring Well Construction Diagrams



NOT TO SCALE

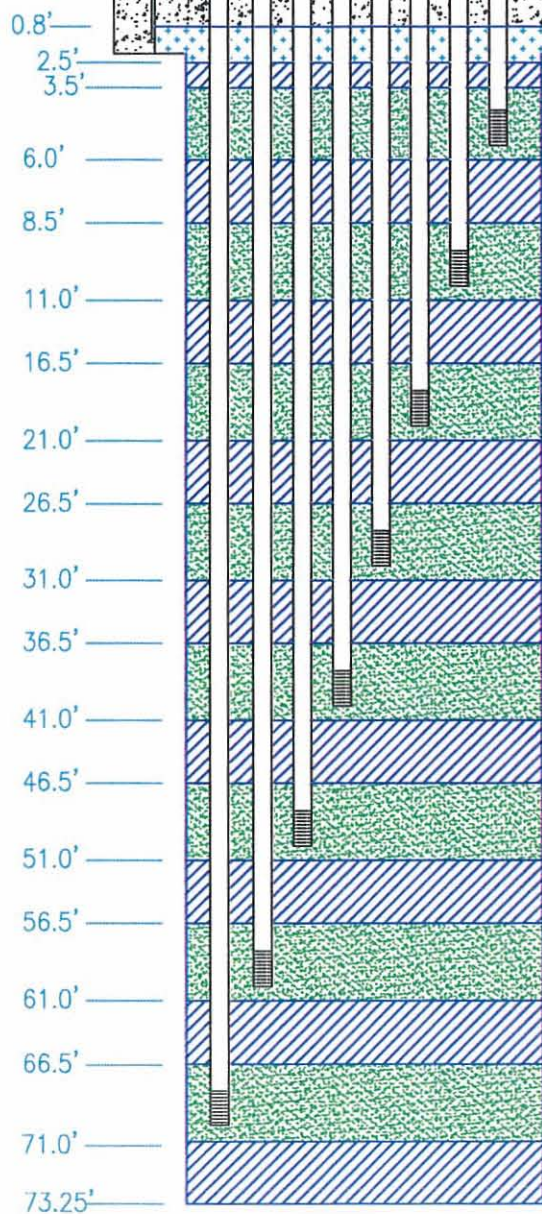
TITLE: WELL CONSTRUCTION DIAGRAM FOR DUAL NESTED SVMW-5A,B THROUGH SVMW-7A,B & SVMW-9A,B THROUGH SVMW-12A,B		
LOCATION: 20TH AND FACTOR WQARF SITE, YUMA, ARIZONA		
	CHECKED	JZ/MO
	DRAFTED	BB
	PROJECT	1303.036
	DATE	4/2/10
		FIGURE B-1

TFDEQP000328

Soil Gas Sampling Port
(Swagelok Angle Valve)

18" Diameter Traffic-Rated
Flush to Grade Well Vault

36" Square Concrete Patch



Casing Material: Sch. 40 PVC
Casing Diameter: 1 inch
Borehole Depth: 73.25 feet
Borehole Diameter: 14.75 inch
Slot Size: 0.020 inch
Well Caps: 1 inch
Sand Pack: 8-12 Silica
Screen length: 2.5 feet for all wells
Bottom of well located 1 foot above bentonite pellets for all wells.

 Bentonite Pellets
 Sand
 Grout

NOT TO SCALE

TITLE:

WELL CONSTRUCTION DIAGRAM FOR
MULTI-NESTED SVMW-8

LOCATION:

20TH AND FACTOR WQARF SITE, YUMA, ARIZONA



GeoTrans, Inc.
A TETRA TECH COMPANY

CHECKED	JZ/MO
DRAFTED	BB
PROJECT	1303.038
DATE	4/2/2010

FIGURE

B-2

TFDEQP000329

APPENDIX C

IDW Laboratory Reports and Disposal Documentation



2219 South 48th Street, Suite B
Tempe, Arizona 85282
(602) 437-0741
(602) 436-1456 Fax

Client: Jasenka Zbozinek
Company: Geotrans, Inc.
Address: 4801 E. Washington, Suite 260
Address: Phoenix, AZ 85034

Work Order #: 1003033
Project Name: 20th & Factor WQARF
Project Number: NA
Report date: 03/24/10

Dear Client:

Sunset Analytical Laboratory received two (2) samples for analysis on 03/12/10.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

Portions of this work order were subcontracted Environmental Science Corp.
Their entire report is included.

If you have any questions or concerns regarding your samples analysis, please
contact the laboratory at (602) 437-0741.

Sincerely,

Vic Nielsen

ADHS License No. AZ0729



Client: Jasenka Zbozinek
Company: Geotrans, Inc.
Address: 4801 E. Washington, Suite 260
Address: Phoenix, AZ 85034

Work Order #: 1003033
Project Name: 20th & Factor WQARF
Project Number: NA
Received Date: 03/12/10

Case Narrative

All samples and QC associated with your samples met the quality control objectives. Any discrepancies will be addressed in this case narrative. Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

L2 The associated blank spike recovery was below laboratory acceptance limits.

Definitions

CCV	Continuing Calibration Verification: A solution of one or more compounds used to evaluate the performance of the instrument system with respect to a defined set of method criteria.
Duplicate	Two aliquots of the same sample analyzed separately with identical procedures. Analyses of the sample and duplicate indicates precision associated with laboratory procedures.
LCS	Laboratory Control Sample: An aliquot of a blank matrix to which known quantities of the method analytes are added in the laboratory. The LCS is analyzed exactly like a sample, and its purpose is to determine whether the methodology is in control, and whether the laboratory is making accurate and precise measurements.
LCSD	Laboratory Control Sample Duplicate: A duplicate analyses of an LCS. It is an indication of precision and accuracy.
MS	Matrix Spike: An aliquot of an environmental sample to which known quantities of the method analytes are added in the laboratory. The MS is analyzed exactly like a sample, and its purpose is to determine whether the sample matrix contributes bias to the analytical results.
MSD	Matrix Spike Duplicate: A duplicate analyses of an MS. It also is an indication of precision and accuracy.
RPD	Reported Percent Difference. RPD is simply a QC measurement used by taking the difference of two results, and dividing by the average of the two results, and converting that number to a percent.
Surrogate	A pure analyte, which is extremely unlikely to be found in any sample, and which is added to a sample in known amounts before analyzing. It is measured with the same procedures used to measure other sample components. The purpose of the surrogate is to monitor method performance with each sample.



Sample Temperature	5.2
Samples received intact	Y
Correct container	Y
Correct preservation	Y

[illegible]

Sample Report - 8260 Soil

Lab ID: 1003033-01
Client ID: IDW-SB-031210
Project Name: 20th & Factor WQARF
Analyst: BP

Sample Date: 03/12/10
Sample Time: 10:30:00
Analysis Date: 03/20/10
Batch ID: S031210A

Compound	Conc.	Units	Dil	Qual.
1,1,1,2-Tetrachloroethane	<0.05	mg/Kg	1	
1,1,1-Trichloroethane	<0.05	mg/Kg	1	
1,1,2,2-Tetrachloroethane	<0.05	mg/Kg	1	
1,1,2-Trichloroethane	<0.05	mg/Kg	1	
1,1-Dichloroethane	<0.05	mg/Kg	1	
1,1-Dichloroethene	<0.05	mg/Kg	1	
1,1-Dichloropropene	<0.05	mg/Kg	1	
1,2,3-Trichlorobenzene	<0.10	mg/Kg	1	
1,2,3-Trichloropropane	<0.10	mg/Kg	1	
1,2,4-Trichlorobenzene	<0.10	mg/Kg	1	
1,2,4-Trimethylbenzene	0.053	mg/Kg	1	
1,3,5-Trimethylbenzene	<0.05	mg/Kg	1	
1,2-Dibromo-3-chloropropane	<0.50	mg/Kg	1	
1,2-Dibromoethane	<0.05	mg/Kg	1	
1,2-Dichlorobenzene	<0.05	mg/Kg	1	
1,2-Dichloroethane	<0.05	mg/Kg	1	
1,2-Dichloropropane	<0.05	mg/Kg	1	
1,3-Dichlorobenzene	<0.05	mg/Kg	1	
1,3-Dichloropropane	<0.05	mg/Kg	1	
1,4-Dichlorobenzene	<0.05	mg/Kg	1	
2,2-Dichloropropane	<0.10	mg/Kg	1	
2-Butanone	<0.25	mg/Kg	1	
2-Chloroethylvinyl ether	<0.25	mg/Kg	1	
2-Chlorotoluene	<0.05	mg/Kg	1	
2-Hexanone	<0.25	mg/Kg	1	
4-Chlorotoluene	<0.05	mg/Kg	1	
4-Isopropyltoluene	<0.05	mg/Kg	1	
4-Methyl-2-pentanone	<0.25	mg/Kg	1	
Acetone	<1.00	mg/Kg	1	
Benzene	<0.05	mg/Kg	1	
Bromobenzene	<0.05	mg/Kg	1	
Bromochloromethane	<0.05	mg/Kg	1	
Bromodichloromethane	<0.05	mg/Kg	1	
Bromoform	<0.25	mg/Kg	1	

Surrogate	Rec	%	Qual.	Limits
Dibromofluoromethane	41.0	82.0		70-130
1,2-Dichloroethane-d4	43.8	87.5		51.9-184.1
Toluene-d8	47.5	95.0		70-130
4-Bromofluorobenzene	46.7	93.4		62.4-111.6

Compound	Conc.	Units	Dil	Qual.
Bromomethane	<0.10	mg/Kg	1	L2
Carbon disulfide	<0.10	mg/Kg	1	
Carbon Tetrachloride	<0.05	mg/Kg	1	
Chlorobenzene	<0.05	mg/Kg	1	
Chloroethane	<0.05	mg/Kg	1	
Chloroform	<0.05	mg/Kg	1	
Chloromethane	<0.25	mg/Kg	1	
cis-1,2-Dichloroethene	<0.05	mg/Kg	1	
cis-1,3-Dichloropropene	<0.05	mg/Kg	1	
Dibromochloromethane	<0.05	mg/Kg	1	
Dibromomethane	<0.05	mg/Kg	1	
Dichlorodifluoromethane	<0.05	mg/Kg	1	L2
Ethylbenzene	<0.05	mg/Kg	1	
Hexachlorobutadiene	<0.10	mg/Kg	1	
Iodomethane	<0.25	mg/Kg	1	
Isopropylbenzene	<0.05	mg/Kg	1	
Methyl tert-butyl ether	<0.05	mg/Kg	1	
Methylene Chloride	<0.50	mg/Kg	1	
Naphthalene	<0.25	mg/Kg	1	
n-Butylbenzene	<0.05	mg/Kg	1	
n-Propylbenzene	<0.05	mg/Kg	1	
sec-Butylbenzene	<0.05	mg/Kg	1	
Styrene	<0.05	mg/Kg	1	
tert-Butylbenzene	<0.05	mg/Kg	1	
Tetrachloroethene	<0.05	mg/Kg	1	
Toluene	<0.05	mg/Kg	1	
trans-1,2-Dichloroethene	<0.05	mg/Kg	1	
trans-1,3-Dichloropropene	<0.05	mg/Kg	1	
Trichloroethene	<0.05	mg/Kg	1	
Trichlorofluoromethane	<0.05	mg/Kg	1	
Vinyl acetate	<0.05	mg/Kg	1	
Vinyl Chloride	<0.05	mg/Kg	1	
Xylenes, Total	<0.15	mg/Kg	1	

Sample Report - 8260 Soil

Lab ID: 1003033-02
Client ID: IDW-NB-031210
Project Name: 20th & Factor WQARF
Analyst: JJ

Sample Date: 03/12/10
Sample Time: 10:30:00
Analysis Date: 03/17/10
Batch ID: S031210A

Compound	Conc.	Units	Dil	Qual.
1,1,1,2-Tetrachloroethane	<0.05	mg/Kg	1	
1,1,1-Trichloroethane	<0.05	mg/Kg	1	
1,1,2,2-Tetrachloroethane	<0.05	mg/Kg	1	
1,1,2-Trichloroethane	<0.05	mg/Kg	1	
1,1-Dichloroethane	<0.05	mg/Kg	1	
1,1-Dichloroethene	<0.05	mg/Kg	1	
1,1-Dichloropropene	<0.05	mg/Kg	1	
1,2,3-Trichlorobenzene	<0.10	mg/Kg	1	
1,2,3-Trichloropropane	<0.10	mg/Kg	1	
1,2,4-Trichlorobenzene	<0.10	mg/Kg	1	
1,2,4-Trimethylbenzene	<0.05	mg/Kg	1	
1,3,5-Trimethylbenzene	<0.05	mg/Kg	1	
1,2-Dibromo-3-chloropropane	<0.50	mg/Kg	1	
1,2-Dibromoethane	<0.05	mg/Kg	1	
1,2-Dichlorobenzene	<0.05	mg/Kg	1	
1,2-Dichloroethane	<0.05	mg/Kg	1	
1,2-Dichloropropane	<0.05	mg/Kg	1	
1,3-Dichlorobenzene	<0.05	mg/Kg	1	
1,3-Dichloropropane	<0.05	mg/Kg	1	
1,4-Dichlorobenzene	<0.05	mg/Kg	1	
2,2-Dichloropropane	<0.10	mg/Kg	1	
2-Butanone	<0.25	mg/Kg	1	
2-Chloroethylvinyl ether	<0.25	mg/Kg	1	
2-Chlorotoluene	<0.05	mg/Kg	1	
2-Hexanone	<0.25	mg/Kg	1	
4-Chlorotoluene	<0.05	mg/Kg	1	
4-Isopropyltoluene	<0.05	mg/Kg	1	
4-Methyl-2-pentanone	<0.25	mg/Kg	1	
Acetone	<1.00	mg/Kg	1	
Benzene	<0.05	mg/Kg	1	
Bromobenzene	<0.05	mg/Kg	1	
Bromochloromethane	<0.05	mg/Kg	1	
Bromodichloromethane	<0.05	mg/Kg	1	
Bromoform	<0.25	mg/Kg	1	

Compound	Conc.	Units	Dil	Qual.
Bromomethane	<0.10	mg/Kg	1	L2
Carbon disulfide	<0.10	mg/Kg	1	
Carbon Tetrachloride	<0.05	mg/Kg	1	
Chlorobenzene	<0.05	mg/Kg	1	
Chloroethane	<0.05	mg/Kg	1	
Chloroform	<0.05	mg/Kg	1	
Chloromethane	<0.25	mg/Kg	1	
cis-1,2-Dichloroethene	<0.05	mg/Kg	1	
cis-1,3-Dichloropropene	<0.05	mg/Kg	1	
Dibromochloromethane	<0.05	mg/Kg	1	
Dibromomethane	<0.05	mg/Kg	1	
Dichlorodifluoromethane	<0.05	mg/Kg	1	L2
Ethylbenzene	<0.05	mg/Kg	1	
Hexachlorobutadiene	<0.10	mg/Kg	1	
Iodomethane	<0.25	mg/Kg	1	
Isopropylbenzene	<0.05	mg/Kg	1	
Methyl tert-butyl ether	<0.05	mg/Kg	1	
Methylene Chloride	<0.50	mg/Kg	1	
Naphthalene	<0.25	mg/Kg	1	
n-Butylbenzene	<0.05	mg/Kg	1	
n-Propylbenzene	<0.05	mg/Kg	1	
sec-Butylbenzene	<0.05	mg/Kg	1	
Styrene	<0.05	mg/Kg	1	
tert-Butylbenzene	<0.05	mg/Kg	1	
Tetrachloroethene	<0.05	mg/Kg	1	
Toluene	<0.05	mg/Kg	1	
trans-1,2-Dichloroethene	<0.05	mg/Kg	1	
trans-1,3-Dichloropropene	<0.05	mg/Kg	1	
Trichloroethene	<0.05	mg/Kg	1	
Trichlorofluoromethane	<0.05	mg/Kg	1	
Vinyl acetate	<0.05	mg/Kg	1	
Vinyl Chloride	<0.05	mg/Kg	1	
Xylenes, Total	<0.15	mg/Kg	1	

Surrogate	Rec	%	Qual.	Limits
Dibromofluoromethane	42.7	85.3		70-130
1,2-Dichloroethane-d4	44.3	88.6		51.9-184.1
Toluene-d8	47.2	94.3		70-130
4-Bromofluorobenzene	46.3	92.5		62.4-111.6

Method Blank - 8260 Soil

Analysis Date: 03/17/10
Analyst: JJ

Work Order: 1003033
Batch ID: S031210A

Compound	Limits	Units	Qualifiers
1,1,1,2-Tetrachloroethane	<0.05	mg/Kg	
1,1,1-Trichloroethane	<0.05	mg/Kg	
1,1,2,2-Tetrachloroethane	<0.05	mg/Kg	
1,1,2-Trichloroethane	<0.05	mg/Kg	
1,1-Dichloroethane	<0.05	mg/Kg	
1,1-Dichloroethene	<0.05	mg/Kg	
1,1-Dichloropropene	<0.05	mg/Kg	
1,2,3-Trichlorobenzene	<0.10	mg/Kg	
1,2,3-Trichloropropane	<0.10	mg/Kg	
1,2,4-Trichlorobenzene	<0.10	mg/Kg	
1,2,4-Trimethylbenzene	<0.05	mg/Kg	
1,3,5-Trimethylbenzene	<0.05	mg/Kg	
1,2-Dibromo-3-chloropropane	<0.50	mg/Kg	
1,2-Dibromoethane	<0.05	mg/Kg	
1,2-Dichlorobenzene	<0.05	mg/Kg	
1,2-Dichloroethane	<0.05	mg/Kg	
1,2-Dichloropropane	<0.05	mg/Kg	
1,3-Dichlorobenzene	<0.05	mg/Kg	
1,3-Dichloropropane	<0.05	mg/Kg	
1,4-Dichlorobenzene	<0.05	mg/Kg	
2,2-Dichloropropane	<0.10	mg/Kg	
2-Butanone	<0.25	mg/Kg	
2-Chloroethylvinyl ether	<0.25	mg/Kg	
2-Chlorotoluene	<0.05	mg/Kg	
2-Hexanone	<0.25	mg/Kg	
4-Chlorotoluene	<0.05	mg/Kg	
4-Isopropyltoluene	<0.05	mg/Kg	
4-Methyl-2-pentanone	<0.25	mg/Kg	
Acetone	<1.00	mg/Kg	
Benzene	<0.05	mg/Kg	
Bromobenzene	<0.05	mg/Kg	
Bromochloromethane	<0.05	mg/Kg	
Bromodichloromethane	<0.05	mg/Kg	
Bromoform	<0.25	mg/Kg	

Compound	Limits	Units	Qualifiers
Bromomethane	<0.10	mg/Kg	
Carbon disulfide	<0.10	mg/Kg	
Carbon Tetrachloride	<0.05	mg/Kg	
Chlorobenzene	<0.05	mg/Kg	
Chloroethane	<0.05	mg/Kg	
Chloroform	<0.05	mg/Kg	
Chloromethane	<0.25	mg/Kg	
cis-1,2-Dichloroethene	<0.05	mg/Kg	
cis-1,3-Dichloropropene	<0.05	mg/Kg	
Dibromochloromethane	<0.05	mg/Kg	
Dibromomethane	<0.05	mg/Kg	
Dichlorodifluoromethane	<0.05	mg/Kg	
Ethylbenzene	<0.05	mg/Kg	
Hexachlorobutadiene	<0.10	mg/Kg	
Iodomethane	<0.25	mg/Kg	
Isopropylbenzene	<0.05	mg/Kg	
m,p-Xylene	<0.10	mg/Kg	
Methyl tert-butyl ether	<0.05	mg/Kg	
Methylene Chloride	<0.50	mg/Kg	
Naphthalene	<0.25	mg/Kg	
n-Butylbenzene	<0.05	mg/Kg	
n-Propylbenzene	<0.05	mg/Kg	
o-Xylene	<0.05	mg/Kg	
sec-Butylbenzene	<0.05	mg/Kg	
Styrene	<0.05	mg/Kg	
tert-Butylbenzene	<0.05	mg/Kg	
Tetrachloroethene	<0.05	mg/Kg	
Toluene	<0.05	mg/Kg	
trans-1,2-Dichloroethene	<0.05	mg/Kg	
trans-1,3-Dichloropropene	<0.05	mg/Kg	
Trichloroethene	<0.05	mg/Kg	
Trichlorofluoromethane	<0.05	mg/Kg	
Vinyl acetate	<0.05	mg/Kg	
Vinyl Chloride	<0.05	mg/Kg	

Surrogate	Conc. ug/L	Surr. %	Limits
Dibromofluoromethane	44.4	88.8	70-130
1,2-Dichloroethane-d4	46.5	92.9	51.9-184.1
Toluene-d4	49.7	99.3	70-130
4-Bromofluorobenzene	48.0	96.0	62.4-111.6

Method Blank - 8260 Soil

Analysis Date: 03/20/10
Analyst: JJ

Work Order: 1003033
Batch ID: S031210A

Compound	Limits	Units	Qualifiers
1,1,1,2-Tetrachloroethane	<0.05	mg/Kg	
1,1,1-Trichloroethane	<0.05	mg/Kg	
1,1,2,2-Tetrachloroethane	<0.05	mg/Kg	
1,1,2-Trichloroethane	<0.05	mg/Kg	
1,1-Dichloroethane	<0.05	mg/Kg	
1,1-Dichloroethene	<0.05	mg/Kg	
1,1-Dichloropropene	<0.05	mg/Kg	
1,2,3-Trichlorobenzene	<0.10	mg/Kg	
1,2,3-Trichloropropane	<0.10	mg/Kg	
1,2,4-Trichlorobenzene	<0.10	mg/Kg	
1,2,4-Trimethylbenzene	<0.05	mg/Kg	
1,3,5-Trimethylbenzene	<0.05	mg/Kg	
1,2-Dibromo-3-chloropropane	<0.50	mg/Kg	
1,2-Dibromoethane	<0.05	mg/Kg	
1,2-Dichlorobenzene	<0.05	mg/Kg	
1,2-Dichloroethane	<0.05	mg/Kg	
1,2-Dichloropropane	<0.05	mg/Kg	
1,3-Dichlorobenzene	<0.05	mg/Kg	
1,3-Dichloropropane	<0.05	mg/Kg	
1,4-Dichlorobenzene	<0.05	mg/Kg	
2,2-Dichloropropane	<0.10	mg/Kg	
2-Butanone	<0.25	mg/Kg	
2-Chloroethylvinyl ether	<0.25	mg/Kg	
2-Chlorotoluene	<0.05	mg/Kg	
2-Hexanone	<0.25	mg/Kg	
4-Chlorotoluene	<0.05	mg/Kg	
4-Isopropyltoluene	<0.05	mg/Kg	
4-Methyl-2-pentanone	<0.25	mg/Kg	
Acetone	<1.00	mg/Kg	
Benzene	<0.05	mg/Kg	
Bromobenzene	<0.05	mg/Kg	
Bromochloromethane	<0.05	mg/Kg	
Bromodichloromethane	<0.05	mg/Kg	
Bromoform	<0.25	mg/Kg	

Compound	Limits	Units	Qualifiers
Bromomethane	<0.10	mg/Kg	
Carbon disulfide	<0.10	mg/Kg	
Carbon Tetrachloride	<0.05	mg/Kg	
Chlorobenzene	<0.05	mg/Kg	
Chloroethane	<0.05	mg/Kg	
Chloroform	<0.05	mg/Kg	
Chloromethane	<0.25	mg/Kg	
cis-1,2-Dichloroethene	<0.05	mg/Kg	
cis-1,3-Dichloropropene	<0.05	mg/Kg	
Dibromochloromethane	<0.05	mg/Kg	
Dibromomethane	<0.05	mg/Kg	
Dichlorodifluoromethane	<0.05	mg/Kg	
Ethylbenzene	<0.05	mg/Kg	
Hexachlorobutadiene	<0.10	mg/Kg	
Iodomethane	<0.25	mg/Kg	
Isopropylbenzene	<0.05	mg/Kg	
m,p-Xylene	<0.10	mg/Kg	
Methyl tert-butyl ether	<0.05	mg/Kg	
Methylene Chloride	<0.50	mg/Kg	
Naphthalene	<0.25	mg/Kg	
n-Butylbenzene	<0.05	mg/Kg	
n-Propylbenzene	<0.05	mg/Kg	
o-Xylene	<0.05	mg/Kg	
sec-Butylbenzene	<0.05	mg/Kg	
Styrene	<0.05	mg/Kg	
tert-Butylbenzene	<0.05	mg/Kg	
Tetrachloroethene	<0.05	mg/Kg	
Toluene	<0.05	mg/Kg	
trans-1,2-Dichloroethene	<0.05	mg/Kg	
trans-1,3-Dichloropropene	<0.05	mg/Kg	
Trichloroethene	<0.05	mg/Kg	
Trichlorofluoromethane	<0.05	mg/Kg	
Vinyl acetate	<0.05	mg/Kg	
Vinyl Chloride	<0.05	mg/Kg	

Surrogate	Conc. ug/L	Surr. %	Limits
Dibromofluoromethane	44.0	88.1	70-130
1,2-Dichloroethane-d4	44.4	88.8	51.9-184.1
Toluene-d4	47.9	95.8	70-130
4-Bromofluorobenzene	47.7	95.3	62.4-111.6

Method Blank - 8260 Soil

Analysis Date: 03/23/10
Analyst: BP

Work Order: 1003033
Batch ID: S031210A

Compound	Limits	Units	Qualifiers
1,1,1,2-Tetrachloroethane	<0.05	mg/Kg	
1,1,1-Trichloroethane	<0.05	mg/Kg	
1,1,2,2-Tetrachloroethane	<0.05	mg/Kg	
1,1,2-Trichloroethane	<0.05	mg/Kg	
1,1-Dichloroethane	<0.05	mg/Kg	
1,1-Dichloroethene	<0.05	mg/Kg	
1,1-Dichloropropene	<0.05	mg/Kg	
1,2,3-Trichlorobenzene	<0.10	mg/Kg	
1,2,3-Trichloropropane	<0.10	mg/Kg	
1,2,4-Trichlorobenzene	<0.10	mg/Kg	
1,2,4-Trimethylbenzene	<0.05	mg/Kg	
1,3,5-Trimethylbenzene	<0.05	mg/Kg	
1,2-Dibromo-3-chloropropane	<0.50	mg/Kg	
1,2-Dibromoethane	<0.05	mg/Kg	
1,2-Dichlorobenzene	<0.05	mg/Kg	
1,2-Dichloroethane	<0.05	mg/Kg	
1,2-Dichloropropane	<0.05	mg/Kg	
1,3-Dichlorobenzene	<0.05	mg/Kg	
1,3-Dichloropropane	<0.05	mg/Kg	
1,4-Dichlorobenzene	<0.05	mg/Kg	
2,2-Dichloropropane	<0.10	mg/Kg	
2-Butanone	<0.25	mg/Kg	
2-Chloroethylvinyl ether	<0.25	mg/Kg	
2-Chlorotoluene	<0.05	mg/Kg	
2-Hexanone	<0.25	mg/Kg	
4-Chlorotoluene	<0.05	mg/Kg	
4-Isopropyltoluene	<0.05	mg/Kg	
4-Methyl-2-pentanone	<0.25	mg/Kg	
Acetone	<1.00	mg/Kg	
Benzene	<0.05	mg/Kg	
Bromobenzene	<0.05	mg/Kg	
Bromochloromethane	<0.05	mg/Kg	
Bromodichloromethane	<0.05	mg/Kg	
Bromoform	<0.25	mg/Kg	

Compound	Limits	Units	Qualifiers
Bromomethane	<0.10	mg/Kg	
Carbon disulfide	<0.10	mg/Kg	
Carbon Tetrachloride	<0.05	mg/Kg	
Chlorobenzene	<0.05	mg/Kg	
Chloroethane	<0.05	mg/Kg	
Chloroform	<0.05	mg/Kg	
Chloromethane	<0.25	mg/Kg	
cis-1,2-Dichloroethene	<0.05	mg/Kg	
cis-1,3-Dichloropropene	<0.05	mg/Kg	
Dibromochloromethane	<0.05	mg/Kg	
Dibromomethane	<0.05	mg/Kg	
Dichlorodifluoromethane	<0.05	mg/Kg	
Ethylbenzene	<0.05	mg/Kg	
Hexachlorobutadiene	<0.10	mg/Kg	
Iodomethane	<0.25	mg/Kg	
Isopropylbenzene	<0.05	mg/Kg	
m,p-Xylene	<0.10	mg/Kg	
Methyl tert-butyl ether	<0.05	mg/Kg	
Methylene Chloride	<0.50	mg/Kg	
Naphthalene	<0.25	mg/Kg	
n-Butylbenzene	<0.05	mg/Kg	
n-Propylbenzene	<0.05	mg/Kg	
o-Xylene	<0.05	mg/Kg	
sec-Butylbenzene	<0.05	mg/Kg	
Styrene	<0.05	mg/Kg	
tert-Butylbenzene	<0.05	mg/Kg	
Tetrachloroethene	<0.05	mg/Kg	
Toluene	<0.05	mg/Kg	
trans-1,2-Dichloroethene	<0.05	mg/Kg	
trans-1,3-Dichloropropene	<0.05	mg/Kg	
Trichloroethene	<0.05	mg/Kg	
Trichlorofluoromethane	<0.05	mg/Kg	
Vinyl acetate	<0.05	mg/Kg	
Vinyl Chloride	<0.05	mg/Kg	

Surrogate	Conc. ug/L	Surr. %	Limits
Dibromofluoromethane	43.5	87.0	70-130
1,2-Dichloroethane-d4	43.3	86.5	51.9-184.1
Toluene-d4	48.0	95.9	70-130
4-Bromofluorobenzene	48.5	96.9	62.4-111.6

CCV - 8260 Soil

Analysis Date: 03/17/10
Analyst: JJ

Work Order: 1003033
Batch ID: S031210A

Compound List	CCV Recovery	True Value	% Recovery	Limits %	Qualifiers
1,1,1,2-Tetrachloroethane	19.3	20.0	96.5	80-120	
1,1,1-Trichloroethane	18.9	20.0	94.3	80-120	
1,1,2,2-Tetrachloroethane	18.5	20.0	92.6	80-120	
1,1,2-Trichloroethane	20.2	20.0	101	80-120	
1,1-Dichloroethane	19.8	20.0	99.2	80-120	
1,1-Dichloroethene	20.1	20.0	100	80-120	
1,1-Dichloropropene	19.8	20.0	99.2	80-120	
1,2,3-Trichlorobenzene	19.1	20.0	95.3	43.6-164.0	
1,2,3-Trichloropropane	20.1	20.0	101	71.6-129.3	
1,2,4-Trichlorobenzene	19.2	20.0	96.2	33.2-184.2	
1,2,4-Trimethylbenzene	19.5	20.0	97.6	76.0-128.0	
1,2-Dibromo-3-chloropropane	18.7	20.0	93.4	57.2-158.5	
1,2-Dibromoethane	20.3	20.0	102	80-120	
1,2-Dichlorobenzene	19.4	20.0	97.1	80-120	
1,2-Dichloroethane	19.4	20.0	96.8	80-120	
1,2-Dichloropropane	20.0	20.0	100	80-120	
1,3,5-trimethylbenzene	19.7	20.0	98.6	80-120	
1,3-Dichlorobenzene	19.7	20.0	98.5	80-120	
1,3-Dichloropropane	19.7	20.0	98.3	80-120	
1,4-Dichlorobenzene	19.5	20.0	97.5	80-120	
2,2-Dichloropropane	19.3	20.0	96.4	50.4-166.5	
2-Butanone	19.8	20.0	99.2	53.9-139.1	
2-Chloroethylvinyl ether	19.1	20.0	95.3	68.7-115.9	
2-Chlorotoluene	18.9	20.0	94.7	80-120	
2-Hexanone	20.0	20.0	99.9	58.8-154.3	
4-Chlorotoluene	19.0	20.0	95.1	80-120	
4-Isopropyltoluene	19.7	20.0	98.5	74.9-135.6	
4-Methyl-2-pentanone	19.7	20.0	98.3	73.0-128.0	
Acetone	20.9	20.0	104	24.4-162.4	
Benzene	19.7	20.0	98.5	80-120	
Bromobenzene	19.4	20.0	96.9	80-120	
Bromochloromethane	20.4	20.0	102	80-120	
Bromodichloromethane	19.0	20.0	95.0	80-120	
Bromoform	19.3	20.0	96.4	80-120	
Bromomethane	20.4	20.0	102	62.0-137.1	
Carbon disulfide	19.8	20.0	99.1	70.0-122.4	
Carbon Tetrachloride	19.6	20.0	97.9	80-120	
Chlorobenzene	20.2	20.0	101	80-120	
Chloroethane	20.3	20.0	101	62.4-132.4	
Chloroform	19.8	20.0	99.2	80-120	
Chloromethane	20.2	20.0	101	80-120	
cis-1,2-Dichloroethene	19.8	20.0	98.8	80-120	
cis-1,3-Dichloropropene	18.7	20.0	93.6	77.3-118.0	
Dibromochloromethane	18.8	20.0	94.1	77.4-109.0	
Dibromomethane	21.4	20.0	107	80-120	
Dichlorodifluoromethane	19.9	20.0	99.6	66.8-138.9	

CCV - 8260 Soil

Analysis Date: 03/17/10
Analyst: JJ

Work Order: 1003033
Batch ID: S031210A

Compound List	CCV Recovery	True Value	% Recovery	Limits %	Qualifiers
Ethylbenzene	20.0	20.0	100	80-120	
Hexachlorobutadiene	19.6	20.0	98.1	70.1-135.2	
Iodomethane	20.1	20.0	100	70.5-135.6	
Isopropylbenzene	20.7	20.0	103	86.8-123.7	
m,p-Xylene	40.2	40.0	100	80-120	
Methyl tert-butyl ether	17.1	20.0	85.5	60.0-139.1	
Methylene Chloride	19.5	20.0	97.3	55.3-133.1	
Naphthalene	16.9	20.0	84.7	7.89-197.1	
n-Butylbenzene	19.4	20.0	96.8	50.5-167.2	
n-Propylbenzene	19.7	20.0	98.4	80-120	
o-Xylene	20.2	20.0	101	80-120	
sec-Butylbenzene	20.0	20.0	99.9	76.9-133.7	
Styrene	21.0	20.0	105	80-120	
tert-Butylbenzene	19.8	20.0	99.2	81.3-128.1	
Tetrachloroethene	20.6	20.0	103	80-120	
Toluene	20.0	20.0	100	80-120	
trans-1,2-Dichloroethene	19.7	20.0	98.7	63.7-131.6	
trans-1,3-Dichloropropene	17.8	20.0	89.2	65.7-126.5	
Trichloroethylene	20.8	20.0	104	80-120	
Trichlorofluoromethane	20.4	20.0	102	68.6-129.9	
Vinyl acetate	19.8	20.0	99.2	65.9-127.9	
Vinyl Chloride	20.5	20.0	102	80-120	

Surrogate	Conc. ug/L	Surr. %	Limits	Qualifiers
Dibromofluoromethane	49.9	99.8	70-130	
1,2-Dichloroethane-d4	48.8	97.6	51.9-184.1	
Toluene-d4	50.6	101	70-130	
4-Bromofluorobenzene	49.5	99.1	62.4-111.6	

CCV - 8260 Soil

Analysis Date: 03/20/10
Analyst: JJ

Work Order: 1003033
Batch ID: S031210A

Compound List	CCV Recovery	True Value	% Recovery	Limits %	Qualifiers
1,1,1,2-Tetrachloroethane	18.9	20.0	94.3	80-120	
1,1,1-Trichloroethane	18.5	20.0	92.3	80-120	
1,1,2,2-Tetrachloroethane	19.3	20.0	96.3	80-120	
1,1,2-Trichloroethane	20.4	20.0	102.1	80-120	
1,1-Dichloroethane	19.6	20.0	97.9	80-120	
1,1-Dichloroethene	19.6	20.0	97.9	80-120	
1,1-Dichloropropene	19.7	20.0	98.6	80-120	
1,2,3-Trichlorobenzene	23.0	20.0	114.9	43.6-164.0	
1,2,3-Trichloropropane	21.3	20.0	106.3	71.6-129.3	
1,2,4-Trichlorobenzene	23.4	20.0	117.0	33.2-184.2	
1,2,4-Trimethylbenzene	21.7	20.0	108.5	76.0-128.0	
1,2-Dibromo-3-chloropropane	26.7	20.0	133.6	57.2-158.5	
1,2-Dibromoethane	20.6	20.0	103.0	80-120	
1,2-Dichlorobenzene	20.3	20.0	101.3	80-120	
1,2-Dichloroethane	18.4	20.0	92.1	80-120	
1,2-Dichloropropane	20.3	20.0	101.6	80-120	
1,3,5-trimethylbenzene	21.2	20.0	105.8	80-120	
1,3-Dichlorobenzene	20.5	20.0	102.4	80-120	
1,3-Dichloropropane	19.8	20.0	99.1	80-120	
1,4-Dichlorobenzene	20.4	20.0	101.9	80-120	
2,2-Dichloropropane	19.4	20.0	96.8	50.4-166.5	
2-Butanone	21.4	20.0	107.2	53.9-139.1	
2-Chloroethylvinyl ether	20.2	20.0	101.2	68.7-115.9	
2-Chlorotoluene	19.5	20.0	97.3	80-120	
2-Hexanone	25.2	20.0	125.9	58.8-154.3	
4-Chlorotoluene	19.6	20.0	97.9	80-120	
4-Isopropyltoluene	22.1	20.0	110.5	74.9-135.6	
4-Methyl-2-pentanone	21.7	20.0	108.6	73.0-128.0	
Acetone	22.1	20.0	110.7	24.4-162.4	
Benzene	19.9	20.0	99.4	80-120	
Bromobenzene	19.8	20.0	99.2	80-120	
Bromochloromethane	20.6	20.0	103.1	80-120	
Bromodichloromethane	18.4	20.0	91.9	80-120	
Bromoform	19.1	20.0	95.4	80-120	
Bromomethane	17.2	20.0	85.8	62.0-137.1	
Carbon disulfide	20.2	20.0	100.8	70.0-122.4	
Carbon Tetrachloride	18.5	20.0	92.5	80-120	
Chlorobenzene	20.4	20.0	102.1	80-120	
Chloroethane	19.2	20.0	96.0	62.4-132.4	
Chloroform	19.4	20.0	97.0	80-120	
Chloromethane	20.3	20.0	101.4	80-120	
cis-1,2-Dichloroethene	20.1	20.0	100.7	80-120	
cis-1,3-Dichloropropene	19.0	20.0	95.2	77.3-118.0	
Dibromochloromethane	18.0	20.0	90.2	77.4-109.0	
Dibromomethane	21.5	20.0	107.7	80-120	
Dichlorodifluoromethane	18.9	20.0	94.7	66.8-138.9	

CCV - 8260 Soil

Analysis Date: 03/20/10
Analyst: JJ

Work Order: 1003033
Batch ID: S031210A

Compound List	CCV Recovery	True Value	% Recovery	Limits %	Qualifiers
Ethylbenzene	20.5	20.0	102.3	80-120	
Hexachlorobutadiene	21.8	20.0	109.2	70.1-135.2	
Iodomethane	19.3	20.0	96.5	70.5-135.6	
Isopropylbenzene	21.2	20.0	105.8	86.8-123.7	
m,p-Xylene	41.4	40.0	103.6	80-120	
Methyl tert-butyl ether	17.5	20.0	87.7	60.0-139.1	
Methylene Chloride	19.7	20.0	98.3	55.3-133.1	
Naphthalene	23.3	20.0	116.7	7.89-197.1	
n-Butylbenzene	23.5	20.0	117.6	50.5-167.2	
n-Propylbenzene	20.4	20.0	102.0	80-120	
o-Xylene	20.8	20.0	103.9	80-120	
sec-Butylbenzene	21.6	20.0	108.1	76.9-133.7	
Styrene	21.6	20.0	107.8	80-120	
tert-Butylbenzene	21.0	20.0	104.9	81.3-128.1	
Tetrachloroethene	20.2	20.0	101.2	80-120	
Toluene	20.3	20.0	101.3	80-120	
trans-1,2-Dichloroethene	20.0	20.0	100.1	63.7-131.6	
trans-1,3-Dichloropropene	18.3	20.0	91.3	65.7-126.5	
Trichloroethylene	20.6	20.0	103.1	80-120	
Trichlorofluoromethane	18.6	20.0	93.1	68.6-129.9	
Vinyl acetate	20.6	20.0	103.0	65.9-127.9	
Vinyl Chloride	20.2	20.0	100.9	80-120	

Surrogate	Conc. ug/L	Surr. %	Limits	Qualifiers
Dibromofluoromethane	48.9	97.7	70-130	
1,2-Dichloroethane-d4	47.2	94.5	51.9-184.1	
Toluene-d4	50.6	101	70-130	
4-Bromofluorobenzene	50.2	100	62.4-111.6	

CCV - 8260 Soil

Analysis Date: 03/23/10
Analyst: BP

Work Order: 1003033
Batch ID: S031210A

Compound List	CCV Recovery	True Value	% Recovery	Limits %	Qualifiers
1,1,1,2-Tetrachloroethane	20.0	20.0	100.0	80-120	
1,1,1-Trichloroethane	18.7	20.0	93.4	80-120	
1,1,2,2-Tetrachloroethane	19.9	20.0	99.5	80-120	
1,1,2-Trichloroethane	21.5	20.0	107.3	80-120	
1,1-Dichloroethane	20.3	20.0	101.7	80-120	
1,1-Dichloroethene	20.1	20.0	100.7	80-120	
1,1-Dichloropropene	20.3	20.0	101.6	80-120	
1,2,3-Trichlorobenzene	23.4	20.0	117.2	43.6-164.0	
1,2,3-Trichloropropane	21.8	20.0	109.1	71.6-129.3	
1,2,4-Trichlorobenzene	23.5	20.0	117.4	33.2-184.2	
1,2,4-Trimethylbenzene	21.5	20.0	107.3	76.0-128.0	
1,2-Dibromo-3-chloropropane	22.3	20.0	111.7	57.2-158.5	
1,2-Dibromoethane	21.4	20.0	107.2	80-120	
1,2-Dichlorobenzene	20.8	20.0	103.9	80-120	
1,2-Dichloroethane	19.7	20.0	98.5	80-120	
1,2-Dichloropropane	21.1	20.0	105.6	80-120	
1,3,5-trimethylbenzene	21.2	20.0	106.1	80-120	
1,3-Dichlorobenzene	21.0	20.0	105.1	80-120	
1,3-Dichloropropane	21.0	20.0	105.2	80-120	
1,4-Dichlorobenzene	20.9	20.0	104.5	80-120	
2,2-Dichloropropane	18.8	20.0	93.8	50.4-166.5	
2-Butanone	22.5	20.0	112.3	53.9-139.1	
2-Chloroethylvinyl ether	20.9	20.0	104.5	68.7-115.9	
2-Chlorotoluene	19.8	20.0	99.1	80-120	
2-Hexanone	23.1	20.0	115.6	58.8-154.3	
4-Chlorotoluene	20.1	20.0	100.3	80-120	
4-Isopropyltoluene	22.5	20.0	112.4	74.9-135.6	
4-Methyl-2-pentanone	22.6	20.0	113.1	73.0-128.0	
Acetone	24.8	20.0	123.8	24.4-162.4	
Benzene	20.6	20.0	103.0	80-120	
Bromobenzene	20.3	20.0	101.7	80-120	
Bromochloromethane	22.2	20.0	110.8	80-120	
Bromodichloromethane	19.5	20.0	97.6	80-120	
Bromoform	20.2	20.0	101.1	80-120	
Bromomethane	16.9	20.0	84.4	62.0-137.1	
Carbon disulfide	20.6	20.0	102.8	70.0-122.4	
Carbon Tetrachloride	19.0	20.0	95.2	80-120	
Chlorobenzene	21.3	20.0	106.7	80-120	
Chloroethane	20.5	20.0	102.5	62.4-132.4	
Chloroform	20.3	20.0	101.6	80-120	
Chloromethane	21.8	20.0	109.2	80-120	
cis-1,2-Dichloroethene	20.8	20.0	104.0	80-120	
cis-1,3-Dichloropropene	19.5	20.0	97.5	77.3-118.0	
Dibromochloromethane	19.3	20.0	96.3	77.4-109.0	
Dibromomethane	21.9	20.0	109.7	80-120	
Dichlorodifluoromethane	19.2	20.0	96.1	66.8-138.9	

CCV - 8260 Soil

Analysis Date: 03/23/10
Analyst: BP

Work Order: 1003033
Batch ID: S031210A

Compound List	CCV Recovery	True Value	% Recovery	Limits %	Qualifiers
Ethylbenzene	20.9	20.0	104.5	80-120	
Hexachlorobutadiene	21.5	20.0	107.7	70.1-135.2	
Iodomethane	19.1	20.0	95.3	70.5-135.6	
Isopropylbenzene	21.6	20.0	108.2	86.8-123.7	
m,p-Xylene	42.2	40.0	105.5	80-120	
Methyl tert-butyl ether	17.9	20.0	89.3	60.0-139.1	
Methylene Chloride	21.0	20.0	104.9	55.3-133.1	
Naphthalene	22.4	20.0	111.9	7.89-197.1	
n-Butylbenzene	23.9	20.0	119.6	50.5-167.2	
n-Propylbenzene	20.8	20.0	103.8	80-120	
o-Xylene	21.3	20.0	106.5	80-120	
sec-Butylbenzene	22.1	20.0	110.4	76.9-133.7	
Styrene	22.5	20.0	112.4	80-120	
tert-Butylbenzene	21.2	20.0	106.1	81.3-128.1	
Tetrachloroethene	20.1	20.0	100.6	80-120	
Toluene	20.7	20.0	103.3	80-120	
trans-1,2-Dichloroethene	20.4	20.0	102.1	63.7-131.6	
trans-1,3-Dichloropropene	18.7	20.0	93.4	65.7-126.5	
Trichloroethylene	21.1	20.0	105.3	80-120	
Trichlorofluoromethane	19.4	20.0	96.8	68.6-129.9	
Vinyl acetate	21.2	20.0	106.0	65.9-127.9	
Vinyl Chloride	21.0	20.0	105.1	80-120	

Surrogate	Conc. ug/L	Surr. %	Limits	Qualifiers
Dibromofluoromethane	49.2	98.4	70-130	
1,2-Dichloroethane-d4	47.8	95.6	51.9-184.1	
Toluene-d4	49.6	99.2	70-130	
4-Bromofluorobenzene	49.4	98.8	62.4-111.6	

LCS-LCSD - 8260 Soil

Analysis Date: 03/17/10
Analyst: JJ

Work Order: 1003033
Batch ID: S031210A

Compound List	LCS Recovery	LCS % Rec	LCSD Recovery	LCSD % Rec	True Value	Limits %	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	16.9	84.4	17.2	86.1	20.0	71.3-99.9	1.9	
1,1,1-Trichloroethane	16.8	84.0	17.2	86.2	20.0	73.5-105.3	2.5	
1,1,2,2-Tetrachloroethane	15.9	79.7	16.4	81.8	20.0	71.7-101.7	2.7	
1,1,2-Trichloroethane	18.3	91.4	18.8	94.0	20.0	80-120	2.8	
1,1-Dichloroethane	18.1	90.6	18.4	91.9	20.0	80-120	1.4	
1,1-Dichloroethene	16.3	81.3	16.4	82.0	20.0	63.5-120.8	0.9	
1,1-Dichloropropene	18.3	91.7	18.5	92.6	20.0	80-120	1.0	
1,2,3-Trichlorobenzene	18.9	94.3	19.2	96.2	20.0	70.9-119.4	2.0	
1,2,3-Trichloropropane	14.8	74.2	15.8	79.0	20.0	72.5-107.4	6.3	
1,2,4-Trichlorobenzene	19.3	96.6	19.4	96.8	20.0	73.4-118.3	0.2	
1,2,4-Trimethylbenzene	19.7	98.7	19.3	96.5	20.0	78.5-113.7	2.2	
1,2-Dibromo-3-chloropropane	18.5	92.3	18.3	91.5	20.0	65.7-135.7	0.8	
1,2-Dibromoethane	18.1	90.6	18.6	92.9	20.0	80-120	2.6	
1,2-Dichlorobenzene	18.9	94.3	19.4	97.1	20.0	80-120	2.9	
1,2-Dichloroethane	18.2	90.8	18.5	92.6	20.0	77.9-111.6	2.0	
1,2-dichloropropane	18.6	93.1	19.3	96.4	20.0	80-120	3.5	
1,3,5-trimethylbenzene	19.9	99.3	19.7	98.6	20.0	80-120	0.8	
1,3-Dichlorobenzene	19.4	97.0	19.7	98.5	20.0	80-120	1.5	
1,3-Dichloropropane	18.3	91.5	18.9	94.3	20.0	80-120	3.1	
1,4-Dichlorobenzene	19.3	96.6	19.6	97.8	20.0	80-120	1.2	
2,2-Dichloropropane	16.1	80.6	16.4	82.1	20.0	71.7-103.4	1.8	
2-Butanone	17.5	87.3	18.2	91.2	20.0	60.0-128.1	4.4	
2-Chloroethylvinyl ether	15.3	76.4	16.1	80.5	20.0	69.1-110.2	5.2	
2-Chlorotoluene	19.0	95.0	19.2	95.9	20.0	80-120	1.0	
2-Hexanone	16.2	81.2	17.2	86.0	20.0	67.1-100.6	5.7	
4-Chlorotoluene	18.7	93.5	18.7	93.5	20.0	80-120	0.1	
4-Isopropyltoluene	19.9	99.7	19.5	97.4	20.0	74.7-112.8	2.3	
4-Methyl-2-pentanone	13.6	67.8	14.1	70.5	20.0	55.2-88.4	3.9	
Acetone	17.6	88.1	18.2	90.9	20.0	46.8-134.7	3.1	
Benzene	19.0	94.8	19.4	97.1	20.0	80-120	2.4	
Bromobenzene	19.3	96.7	19.3	96.3	20.0	80-120	0.4	
Bromochloromethane	19.3	96.3	19.8	99.1	20.0	80-120	2.9	
Bromodichloromethane	16.6	83.0	16.9	84.3	20.0	71.3-96.0	1.6	
Bromoform	15.5	77.4	16.1	80.3	20.0	62.8-93.3	3.7	
Bromomethane	11.4	56.8	13.3	66.4	20.0	57.5-117.7	15.7	L2
Carbon disulfide	13.6	67.8	13.8	69.1	20.0	57.3-97.9	1.8	
Carbon Tetrachloride	17.1	85.7	17.3	86.7	20.0	67.3-100.4	1.2	
Chlorobenzene	19.7	98.5	19.9	99.6	20.0	80-120	1.1	
Chloroethane	7.5	37.3	7.6	37.8	20.0	12.7-50.5	1.2	
Chloroform	19.1	95.6	19.3	96.5	20.0	80-120	1.0	
Chloromethane	16.6	83.2	16.4	81.9	20.0	80-120	1.6	
cis-1,2-Dichloroethene	19.4	97.2	19.8	98.8	20.0	80-120	1.6	
cis-1,3-Dichloropropene	15.5	77.7	16.0	79.8	20.0	74.2-96.3	2.6	
Dibromochloromethane	15.2	76.0	15.6	77.8	20.0	62.6-88.0	2.4	
Dibromomethane	19.6	97.8	20.2	101.0	20.0	80-120	3.2	

LCS-LCSD - 8260 Soil

Analysis Date: 03/17/10
Analyst: JJ

Work Order: 1003033
Batch ID: S031210A

Compound List	LCS Recovery	LCS % Rec	LCSD Recovery	LCSD % Rec	True Value	Limits %	RPD	Qualifiers
Dichlorodifluoromethane	12.8	64.1	12.5	62.4	20.0	74.5-149.1	2.7	L2
Ethylbenzene	19.6	97.9	19.6	98.2	20.0	80-120	0.4	
Hexachlorobutadiene	18.1	90.4	18.0	90.1	20.0	78.4-104.2	0.3	
Iodomethane	14.6	72.8	16.3	81.7	20.0	64.5-112.2	11.6	
Isopropylbenzene	17.4	87.0	17.5	87.3	20.0	80-120	0.3	
m,p-Xylene	39.4	98.6	39.6	98.9	40.0	80-120	0.3	
Methyl tert-butyl ether	15.6	78.0	16.2	81.2	20.0	59.4-112.3	4.1	
Methylene Chloride	18.5	92.6	18.5	92.4	20.0	62.7-127.6	0.2	
Naphthalene	15.4	77.1	16.4	82.2	20.0	58.7-109.9	6.4	
n-Butylbenzene	21.0	105.0	20.1	100.7	20.0	65.2-130.1	4.2	
n-Propylbenzene	19.4	97.0	19.5	97.6	20.0	80-120	0.6	
o-Xylene	19.8	98.8	19.9	99.4	20.0	80-120	0.6	
sec-Butylbenzene	20.0	100.1	19.8	99.2	20.0	80-120	0.9	
Styrene	20.6	102.8	20.6	103.0	20.0	80-120	0.2	
tert-Butylbenzene	17.8	88.8	17.8	89.2	20.0	80-120	0.4	
Tetrachloroethene	18.4	91.8	18.9	94.3	20.0	80-120	2.7	
Toluene	19.5	97.7	19.6	98.1	20.0	80-120	0.4	
trans-1,2-Dichloroethene	18.0	89.9	18.4	92.1	20.0	57.7-124.7	2.5	
trans-1,3-Dichloropropene	13.7	68.7	14.0	69.9	20.0	60.9-89.4	1.7	
Trichloroethylene	19.4	96.9	19.7	98.5	20.0	80-120	1.6	
Trichlorofluoromethane	16.5	82.5	16.5	82.6	20.0	72.6-119.4	0.1	
Vinyl acetate	16.6	83.1	17.6	87.8	20.0	58.4-94.6	5.4	
Vinyl Chloride	19.5	97.7	19.4	97.1	20.0	75.5-146.3	0.6	

Surrogate	LCS Recovery	Percent	LCSD Recovery	Percent	RPD	Limits	Qualifiers
Dibromofluoromethane	48.3	96.5	49.9	99.7	3.30	70-130	
1,2-Dichloroethane-d4	47.5	95.0	49.3	98.6	3.72	51.9-184.1	
Toluene-d4	49.8	99.5	50.5	101	1.50	70-130	
4-Bromofluorobenzene	50.2	100	50.1	100	0.08	62.4-111.6	

MS/MSD - 8260 Soil

Analysis Date: 03/23/10
Analyst: BP
Sample Spk: 1003033-02

Work Order: 1003033
Batch ID: S031210A

Compound List	MS Recovery	MS % Rec	MSD Recovery	MSD % Rec	True Value	Limits %	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	18.3	91.7	18.9	94.3	20.0	68.6-113.8	2.85	
1,1,1-Trichloroethane	18.0	90.0	17.8	89.2	20.0	66.8-120.5	0.89	
1,1,2,2-Tetrachloroethane	16.7	83.4	19.2	96.1	20.0	40.7-193.1	14.16	
1,1,2-Trichloroethane	19.2	96.0	21.4	106.8	20.0	88.3-138.2	10.66	
1,1-Dichloroethane	19.9	99.6	20.2	100.9	20.0	70-130	1.30	
1,1-Dichloroethene	19.1	95.5	19.0	95.1	20.0	58.6-122.5	0.42	
1,1-Dichloropropene	20.0	100.1	19.8	98.8	20.0	70-130	1.36	
1,2,3-Trichlorobenzene	20.5	102.3	23.8	119.1	20.0	53.6-128.2	15.18	
1,2,3-Trichloropropane	15.5	77.5	18.0	89.8	20.0	73.0-166.2	14.77	
1,2,4-Trichlorobenzene	21.7	108.5	23.6	117.8	20.0	60.2-122.9	8.27	
1,2,4-Trimethylbenzene	21.5	107.4	22.1	110.3	20.0	70-130	2.67	
1,2-Dibromo-3-chloropropane	17.9	89	24.2	121.0	20.0	61.0-185.2	30.00	
1,2-Dibromoethane	19.1	95.6	20.8	103.9	20.0	70-130	8.27	
1,2-Dichlorobenzene	19.6	97.9	20.2	101.2	20.0	69.7-124	3.27	
1,2-Dichloroethane	18.9	94.6	19.6	98.0	20.0	67.8-120.2	3.53	
1,2-Dichloropropane	20.6	103.1	21.1	105.5	20.0	70-130	2.30	
1,3,5-trimethylbenzene	21.1	105.5	21.6	108.1	20.0	68.4-122.6	2.44	
1,3-Dichlorobenzene	20.4	101.9	20.3	101.7	20.0	70-130	0.15	
1,3-Dichloropropane	19.3	96.5	21.2	106.1	20.0	92.6-131.7	9.53	
1,4-Dichlorobenzene	20.0	100.1	20.2	100.9	20.0	70-130	0.85	
2,2-Dichloropropane	18.0	90.0	17.0	85.2	20.0	62.3-120.4	5.48	
2-Butanone	18.2	90.9	21.2	106.0	20.0	43.9-132.5	15.35	
2-Chloroethylvinyl ether	18.6	92.9	20.8	104.2	20.0	41.3-123.2	11.47	
2-Chlorotoluene	19.8	98.9	19.8	99.1	20.0	70-130	0.15	
2-Hexanone	18.5	92.5	21.3	106.7	20.0	53.8-117.6	14.21	
4-Chlorotoluene	19.4	97.1	19.6	98.2	20.0	70-130	1.18	
4-Isopropyltoluene	21.9	109.4	22.8	114.2	20.0	70-130	4.34	
4-Methyl-2-pentanone	14.7	73.3	17.9	89.3	20.0	39.6-97.2	19.75	
Acetone	21.0	105	23.0	114.9	20.0	27.2-163.1	9.15	
Benzene	20.1	100.5	20.4	102.2	20.0	70-130	1.63	
Bromobenzene	19.9	99.6	20.0	100.1	20.0	70-130	0.50	
Bromochloromethane	21.0	104.9	21.4	106.8	20.0	70-130	1.75	
Bromodichloromethane	17.7	88.3	17.7	88.5	20.0	70-130	0.23	
Bromoform	16.3	81.7	17.9	89.5	20.0	62.5-91.8	9.06	
Bromomethane	15.4	77.0	13.4	67.1	20.0	59.9-118.3	13.68	
Carbon disulfide	17.9	89.5	16.8	84.2	20.0	43.4-124.6	6.11	
Carbon Tetrachloride	18.3	91.6	18.0	90.2	20.0	63.3-112.6	1.54	
Chlorobenzene	20.4	102.1	20.8	104.2	20.0	70-130	2.04	
Chloroethane	7.2	36.2	7.0	35.1	20.0	2.0-91.0	3.09	
Chloroform	19.7	98.6	20.1	100.5	20.0	70-130	1.91	
Chloromethane	22.9	114.5	23.2	115.8	20.0	70-130	1.09	
cis-1,2-Dichloroethene	20.8	104.0	20.5	102.7	20.0	70-130	1.21	
cis-1,3-Dichloropropene	17.4	86.8	17.5	87.5	20.0	64.8-116.8	0.80	

MS/MSD - 8260 Soil

Analysis Date: 03/23/10
 Analyst: BP
 Sample Spk: 1003033-02

Work Order: 1003033
 Batch ID: S031210A

Compound List	MS Recovery	MS % Rec	MSD Recovery	MSD % Rec	True Value	Limits %	RPD	Qualifiers
Dibromochloromethane	16.2	80.9	16.9	84.3	20.0	67.0-98.9	4.18	
Dibromomethane	20.0	100.2	21.3	106.3	20.0	70-130	5.96	
Dichlorodifluoromethane	22.4	112.1	22.8	114.2	20.0	79.5-138.1	1.81	
Ethylbenzene	20.5	102.3	21.1	105.5	20.0	70-130	3.03	
Hexachlorobutadiene	19.8	98.9	22.1	110.4	20.0	67.1-125.2	11.04	
Iodomethane	17.8	88.9	14.1	70.4	20.0	57.7-115.0	23.23	
Isopropylbenzene	18.0	89.8	18.7	93.7	20.0	70-130	4.20	
m,p-Xylene	40.9	102.1	42.2	105.4	40.0	70-130	3.18	
Methyl tert-butyl ether	16.2	80.9	18.0	90.2	20.0	48.0-126.0	10.93	
Methylene Chloride	20.2	101.2	20.5	102.6	20.0	61.6-126.0	1.37	
Naphthalene	18.9	94.3	23.1	115.4	20.0	58.3-118.0	20.08	
n-Butylbenzene	23.7	118.3	25.1	125.5	20.0	70-130	5.95	
n-Propylbenzene	20.4	102.2	21.0	104.9	20.0	70-130	2.56	
o-Xylene	20.7	103.5	21.3	106.5	20.0	70-130	2.81	
sec-Butylbenzene	21.7	108.3	22.4	112.2	20.0	70-130	3.54	
Styrene	21.3	106	21.9	109.7	20.0	70-130	3.15	
tert-Butylbenzene	18.8	93.9	19.3	96.4	20.0	68.3-108.3	2.68	
Tetrachloroethene	19.4	96.8	19.4	96.8	20.0	70-130	0.05	
Toluene	20.2	100.8	20.6	103.0	20.0	67.5-126.6	2.11	
trans-1,2-Dichloroethene	20.1	100	19.7	98.4	20.0	46.6-131.7	1.91	
trans-1,3-Dichloropropene	15.1	75.6	15.4	77.1	20.0	62.5-99.6	1.90	
Trichloroethylene	20.9	104.7	21.1	105.5	20.0	70-130	0.81	
Trichlorofluoromethane	18.2	90.9	17.7	88.7	20.0	70-130	2.45	
Vinyl acetate	19.2	95.8	21.0	105.2	20.0	23.1-114.4	9.31	
Vinyl Chloride	24.6	123.0	25.3	126.7	20.0	79.4-155.4	3.00	

Surrogate	MS Recovery	Percent	MSD Recovery	Percent	RPD	Limits	Qualifiers
Dibromofluoromethane	45.3	90.6	46.2	92.4	1.94	70-130	
1,2-Dichloroethane-d4	42.3	84.6	45.0	90.0	6.23	51.9-184.1	
Toluene-d4	45.9	91.8	48.1	96.2	4.70	70-130	
4-Bromofluorobenzene	46.9	93.9	49.1	98.2	4.54	62.4-111.6	

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Page 1 of 1

20th & Fichte WINTER

Temperature: 5.2

2/3/12/10

Notes or Special Instructions:

3/12/10	14:30
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Sunset Analytical
LABORATORY

Extraction Date: 3/12/10
Method: 8260
Analyst Initials: W
Batch: 5031210A
Solvent: MRKH
Vol. Disp. Check: 1000

JVT
3-22-10

Extraction Log

Line Number	Lab Sample I.D.	Client I.D.	Extraction Time	Sample Weight	Solvent amount	Comments
1	RS	NA	1515		10100	
2	LCS	↓	↓		↓	
3	LCSO	↓	↓		↓	
4	1003053 - 1	INW-SB-031210	↓	108	↓	
5	↓ - 2	INW-NB-031210	↓	↓	↓	
6	MS-2	↓	↓	↓	↓	
7	MSD-2	↓	1520	↓	↓	
8						
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25						

Quality Control Summary
SDG: L449295

For: Sunset Analytical Laboratory
Yuma

L449295

Lab Sample ID.

L449295-01

L449295-02

Client ID

IDW-SB-031210

IDW-NB-031210

Quality Control Summary SDG: L449295

For: Sunset Analytical Laboratory
Project: Yuma
March 18, 2010

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. All method specified holding times were met.

Paint Filter Test by Method 9095B

Laboratory Control Sample

Samples L449295-01 and 02 were analyzed in analytical batch WG467841. The laboratory control sample associated with these samples was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG467841 sample duplicate analysis was performed on sample L449272-02. The relative percent differences were within the method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Ignitability by Method D93/1010A

Laboratory Control Sample

Samples L449295-02 and 01 were analyzed in analytical batch WG468217. The laboratory control sample associated with these samples was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG468217 sample duplicate analysis was performed on sample L449507-01. The relative percent differences were within the method limits.

For analytical batch WG468217 sample duplicate analysis was performed on sample L449182-02. The relative percent differences were within the method limits.

For analytical batch WG468217 sample duplicate analysis was performed on sample L449348-06. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG468217 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

pH by Method 9045D

Laboratory Control Sample

Samples L449295-01 and 02 were analyzed in analytical batch WG468253. The laboratory control sample associated with these samples was within the laboratory control limits.



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Est. 1970

Quality Control Summary SDG: L449295

For: Sunset Analytical Laboratory
Project: Yuma
March 18, 2010

Sample Duplicate Analysis

For analytical batch WG468253 sample duplicate analysis was performed on sample L449585-21. The relative percent differences were within the method limits.

For analytical batch WG468253 sample duplicate analysis was performed on sample L449585-31. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG468253 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Mercury by Method 7471

Laboratory Control Sample

Samples L449295-02 and 01 were analyzed in analytical batch WG467638. The laboratory control sample associated with these samples was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG467638 sample duplicate analysis was performed on sample L449211-13. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG467638, matrix spike/matrix spike duplicate analysis was performed on sample L449211-13. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6010B

Laboratory Control Sample

Samples L449295-01 and 02 were analyzed in analytical batch WG467777. The laboratory control sample associated with these samples was within the laboratory control limits for all compounds.

Samples L449295-02 and 01 were analyzed in analytical batch WG468108. The laboratory control sample associated with these samples was within the laboratory control limits for all compounds.

Sample Duplicate Analysis

For analytical batch WG467777 sample duplicate analysis was performed on sample L449295-02. The relative percent difference exceeded the method limits for Barium.

For analytical batch WG468108 sample duplicate analysis was performed on sample L449415-05. The relative percent differences were within the method limits.

Quality Control Summary

SDG: L449295

For: Sunset Analytical Laboratory

Project: Yuma

March 18, 2010

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG467777 matrix spike/matrix spike duplicate analysis was performed on sample L449295-02. The matrix spike recoveries were above laboratory control limits for Barium. The spike recoveries for the remaining target compounds were within limits. The relative percent difference exceeded laboratory limits for Barium. Post digestion spike recoveries were within the method limits.

For analytical batch WG468108 matrix spike/matrix spike duplicate analysis was performed on sample L449415-05. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Semi-volatile Organic Compounds by Method 8270C

Laboratory Control Sample

Samples L449295-01 and 02 were analyzed in analytical batch WG467671. The laboratory control sample associated with these samples had all target compounds within method limits except for 2,4-Dimethylphenol.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG467671 matrix spike/matrix spike duplicate analysis was performed on sample L449149-04. The matrix spike recoveries were above laboratory control limits for 2,4-Dimethylphenol. The spike recoveries for the remaining target compounds were within limits. The relative percent difference was within laboratory limits for all compounds.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015

Laboratory Control Sample

Samples L449295-01 and 02 were analyzed in analytical batch WG467805. The laboratory control sample associated with these samples was within the laboratory control limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG467805, matrix spike/matrix spike duplicate analysis was performed on sample L449295-01. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Polynuclear Aromatic Hydrocarbons by Method 8310

Laboratory Control Sample

Samples L449295-01 and 02 were analyzed in analytical batch WG467808. The laboratory control sample associated with these samples was within the laboratory control limits for all compounds.



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Quality Control Summary SDG: L449295

For: Sunset Analytical Laboratory

Project: Yuma

March 18, 2010

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG467808 matrix spike/matrix spike duplicate analysis was performed on sample L449295-02. The matrix spike recoveries were below laboratory control limits for Indeno(1,2,3-cd)pyrene. The spike recoveries for the remaining target compounds were within limits. The relative percent difference exceeded laboratory limits for Fluoranthene.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

For L449295-02, on the Semi-volatile Organic Compounds by Method 8270C analysis in WG467671, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Benzo(a)pyrene, Dibenzo(a,h)anthracene, and Indeno(1,2,3-cd)pyrene the internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. BDL results will be unaffected.

Nancy F. Winters
ESC Representative
ESC Lab Sciences



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Victor Nielsen
Sunset Analytical Laboratory
2219 S. 48th Street, Ste B
Tempe, AZ 85282

Report Summary

Thursday March 18, 2010

Report Number: L449295

Samples Received: 03/13/10

Client Project: 1003033

Description: Yuma

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Daphne Richards , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A

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Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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Quality Control Summary
SDG: L449295

For: Sunset Analytical Laboratory
Yuma

L449295

Lab Sample ID.

L449295-01

L449295-02

Client ID

IDW-SB-031210

IDW-NB-031210

SAMPLE NUMBER
IDW-SB-031210

Customer :	<u>Sunset Analytical Laboratory</u>	Project :	<u>1003033</u>
Source :		Date Sampled :	<u>3/12/2010 10:30 AM</u>
Location :	<u>Yuma</u>	Sampled By :	
Lab Sample ID :	<u>L449295-01</u>	Date Received :	<u>3/13/2010</u>

D93/1010A

Analytic Batch: WG468217	Analysis Date: 3/17/2010	Analysis Time: 6:00 PM
Instrument: KOEHLER	Analyst: 504	Preparation Date:
Method: D93/1010A	Dilution: 1	

CAS NO	Analyte	RL Deg. F	RESULTS Deg. F	FLAG
	Ignitability		SEE FOOTNOTE	

9045D

Analytic Batch: WG468253	Analysis Date: 3/18/2010	Analysis Time: 1:17 PM
Instrument: ACCUMET AB	Analyst: 477	Preparation Date:
Method: 9045D	Dilution: 1	

CAS NO	Analyte	RL su	RESULTS su	FLAG
00010-29-7	pH		9.9	

9095B

Analytic Batch: WG467841	Analysis Date: 3/16/2010	Analysis Time: 1:15 PM
Instrument: NONE	Analyst: 479	Preparation Date:
Method: 9095B	Dilution: 1	

CAS NO	Analyte	RL %	RESULTS %	FLAG
	Paint Filter Test		SEE FOOTNOTE	

Comments:

- 1) Sample results are reported as rounded values.
- 2) These results are applicable only to the items tested.

SAMPLE NUMBER
IDW-SB-031210

Customer :	<u>Sunset Analytical Laboratory</u>	Project :	<u>1003033</u>
Source :		Date Sampled :	<u>3/12/2010 10:30 AM</u>
Location :	<u>Yuma</u>	Sampled By :	
Lab Sample ID :	<u>L449295-01</u>	Date Received :	<u>3/13/2010</u>

7471

Analytic Batch: WG467638	Analysis Date: 3/16/2010	Analysis Time: 1:08 PM
Instrument: CVAA3	Analyst: 448	Preparation Date: 3/14/2010 12:04
Method: 7471	Dilution: 1	

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
7439-97-6	Mercury	0.020	< 0.020	

6010B

Analytic Batch: WG467777	Analysis Date: 3/16/2010	Analysis Time: 6:29 PM
Instrument: ICP6	Analyst: 178	Preparation Date: 3/15/2010 2:08
Method: 6010B	Dilution: 1	

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
7440-38-2	Arsenic	1.0	1.7	
7440-39-3	Barium	0.25	160	
7440-43-9	Cadmium	0.25	< 0.25	
7439-92-1	Lead	0.25	3.9	
7782-49-2	Selenium	1.0	< 1.0	
7440-22-4	Silver	0.50	< 0.50	

6010B

Analytic Batch: WG468108	Analysis Date: 3/17/2010	Analysis Time: 10:09
Instrument: ICP6	Analyst: 428	Preparation Date: 3/17/2010 9:56
Method: 6010B	Dilution: 1	

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
7440-47-3	Chromium	0.50	13	

Comments:

- 1) Sample results are reported as rounded values.
- 2) These results are applicable only to the items tested.

SAMPLE NUMBER
IDW-SB-031210

Customer : Sunset Analytical Laboratory
Source :
Location : Yuma
Lab Sample ID : L449295-01

Project : 1003033
Date Sampled : 3/12/2010 10:30 AM
Sampled By :
Date Received : 3/13/2010

8015D/DRO_AZ

Analytic Batch: WG467805
Instrument: SVGC2
Method: 8015D/DRO_AZ

Analysis Date: 3/17/2010
Analyst: 280
Dilution: 1

Analysis Time: 5:56
Preparation Date: 3/15/2010 11:00

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
	C10-C22 Hydrocarbons	30	< 30	
	C22-C32 Hydrocarbons	50	< 50	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
o-Terphenyl	82.2		

8270C

Analytic Batch: WG467671
Instrument: BNAMS4
Method: 8270C

Analysis Date: 3/16/2010
Analyst: 145
Dilution: 1

Analysis Time: 8:50 PM
Preparation Date: 3/14/2010 3:01

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
83-32-9	Acenaphthene	0.033	< 0.033	
208-96-8	Acenaphthylene	0.033	< 0.033	
120-12-7	Anthracene	0.033	< 0.033	
92-87-5	Benzidine	0.33	< 0.33	
56-55-3	Benzo(a)anthracene	0.033	< 0.033	
205-99-2	Benzo(b)fluoranthene	0.033	< 0.033	
207-08-9	Benzo(k)fluoranthene	0.033	< 0.033	
191-24-2	Benzo(g,h,i)perylene	0.033	< 0.033	
50-32-8	Benzo(a)pyrene	0.033	< 0.033	
111-91-1	Bis(2-chlorethoxy)methane	0.33	< 0.33	
111-44-4	Bis(2-chloroethyl)ether	0.33	< 0.33	
108-60-1	Bis(2-chloroisopropyl)ether	0.33	< 0.33	
101-55-3	4-Bromophenyl-phenylether	0.33	< 0.33	
91-58-7	2-Chloronaphthalene	0.033	< 0.033	
7005-72-3	4-Chlorophenyl-phenylether	0.33	< 0.33	
218-01-9	Chrysene	0.033	< 0.033	
53-70-3	Dibenz(a,h)anthracene	0.033	< 0.033	
91-94-1	3,3-Dichlorobenzidine	0.33	< 0.33	

Comments:

- 1) Sample results are reported as rounded values.
- 2) These results are applicable only to the items tested.

SAMPLE NUMBER
IDW-SB-031210

Customer : Sunset Analytical Laboratory
Source :
Location : Yuma
Lab Sample ID : L449295-01

Project : 1003033
Date Sampled : 3/12/2010 10:30 AM
Sampled By :
Date Received : 3/13/2010

8270C

Analytic Batch: WG467671
Instrument: BNAMS4
Method: 8270C

Analysis Date: 3/16/2010
Analyst: 145
Dilution: 1

Analysis Time: 8:50 PM
Preparation Date: 3/14/2010 3:01

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
121-14-2	2,4-Dinitrotoluene	0.33	< 0.33	
606-20-2	2,6-Dinitrotoluene	0.33	< 0.33	
206-44-0	Fluoranthene	0.033	< 0.033	
86-73-7	Fluorene	0.033	< 0.033	
118-74-1	Hexachlorobenzene	0.33	< 0.33	
87-68-3	Hexachloro-1,3-butadiene	0.33	< 0.33	
77-47-4	Hexachlorocyclopentadiene	0.33	< 0.33	
67-72-1	Hexachloroethane	0.33	< 0.33	
193-39-5	Indeno(1,2,3-cd)pyrene	0.033	< 0.033	
78-59-1	Isophorone	0.33	< 0.33	
91-20-3	Naphthalene	0.033	< 0.033	
98-95-3	Nitrobenzene	0.33	< 0.33	
62-75-9	n-Nitrosodimethylamine	0.33	< 0.33	
86-30-6	n-Nitrosodiphenylamine	0.33	< 0.33	
621-64-7	n-Nitrosodi-n-propylamine	0.33	< 0.33	
85-01-8	Phenanthrene	0.033	< 0.033	
85-68-7	Benzylbutyl phthalate	0.33	< 0.33	
117-81-7	Bis(2-ethylhexyl)phthalate	0.33	< 0.33	
84-74-2	Di-n-butyl phthalate	0.33	< 0.33	
84-66-2	Diethyl phthalate	0.33	< 0.33	
131-11-3	Dimethyl phthalate	0.33	< 0.33	
117-84-0	Di-n-octyl phthalate	0.33	< 0.33	
129-00-0	Pyrene	0.033	< 0.033	
120-82-1	1,2,4-Trichlorobenzene	0.33	< 0.33	
59-50-7	4-Chloro-3-methylphenol	0.33	< 0.33	
95-57-8	2-Chlorophenol	0.33	< 0.33	
120-83-2	2,4-Dichlorophenol	0.33	< 0.33	
105-67-9	2,4-Dimethylphenol	0.33	< 0.33	L1
534-52-1	4,6-Dinitro-2-methylphenol	0.33	< 0.33	
51-28-5	2,4-Dinitrophenol	0.33	< 0.33	
88-75-5	2-Nitrophenol	0.33	< 0.33	
100-02-7	4-Nitrophenol	0.33	< 0.33	
87-86-5	Pentachlorophenol	0.33	< 0.33	

Comments:

- 1) Sample results are reported as rounded values.
- 2) These results are applicable only to the items tested.

SAMPLE NUMBER
IDW-SB-031210

Customer :	<u>Sunset Analytical Laboratory</u>	Project :	<u>1003033</u>
Source :		Date Sampled :	<u>3/12/2010 10:30 AM</u>
Location :	<u>Yuma</u>	Sampled By :	
Lab Sample ID :	<u>L449295-01</u>	Date Received :	<u>3/13/2010</u>

8270C

Analytic Batch: WG467671	Analysis Date: 3/16/2010	Analysis Time: 8:50 PM
Instrument: BNAMS4	Analyst: 145	Preparation Date: 3/14/2010 3:01
Method: 8270C	Dilution: 1	

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
108-95-2	Phenol	0.33	< 0.33	
88-06-2	2,4,6-Trichlorophenol	0.33	< 0.33	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
2-Fluorophenol	71.9		
Phenol-d5	76.8		
Nitrobenzene-d5	56.2		
2-Fluorobiphenyl	78.1		
2,4,6-Tribromophenol	83.8		
p-Terphenyl-d14	98.8		

8310

Analytic Batch: WG467808	Analysis Date: 3/17/2010	Analysis Time: 4:41 PM
Instrument: HPLC2	Analyst: 169	Preparation Date: 3/15/2010 3:16
Method: 8310	Dilution: 1	

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
120-12-7	Anthracene	0.020	< 0.020	
83-32-9	Acenaphthene	0.020	< 0.020	
208-96-8	Acenaphthylene	0.020	< 0.020	
56-55-3	Benzo(a)anthracene	0.020	< 0.020	
50-32-8	Benzo(a)pyrene	0.020	< 0.020	
205-99-2	Benzo(b)fluoranthene	0.020	< 0.020	
191-24-2	Benzo(g,h,i)perylene	0.020	< 0.020	
207-08-9	Benzo(k)fluoranthene	0.020	< 0.020	
218-01-9	Chrysene	0.020	< 0.020	
53-70-3	Dibenz(a,h)anthracene	0.020	< 0.020	
206-44-0	Fluoranthene	0.020	< 0.020	
86-73-7	Fluorene	0.020	< 0.020	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	< 0.020	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

SAMPLE NUMBER

IDW-SB-031210

Customer : Sunset Analytical Laboratory
Source :
Location : Yuma
Lab Sample ID : L449295-01

Project : 1003033
Date Sampled : 3/12/2010 10:30 AM
Sampled By :
Date Received : 3/13/2010

8310

Analytic Batch: WG467808
Instrument: HPLC2
Method: 8310

Analysis Date: 3/17/2010
Analyst: 169
Dilution: 1

Analysis Time: 4:41 PM
Preparation Date: 3/15/2010 3:16

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
91-20-3	Naphthalene	0.020	< 0.020	
85-01-8	Phenanthrene	0.020	< 0.020	
129-00-0	Pyrene	0.020	< 0.020	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
p-Terphenyl-d14	122		

LEGEND

RL - Reporting Limit
Did Not Ignite @ 170 F
Contains No Free Liquid
9.9@19.5c

QUALIFIERS

LI - The associated blank spike recovery was above laboratory acceptance limits.

Comments:

- 1) Sample results are reported as rounded values.
- 2) These results are applicable only to the items tested.

SAMPLE NUMBER

IDW-NB-031210

Customer : Sunset Analytical Laboratory
Source :
Location : Yuma
Lab Sample ID : L449295-02

Project : 1003033
Date Sampled : 3/12/2010 10:30 AM
Sampled By :
Date Received : 3/13/2010

D93/1010A

Analytic Batch: WG468217
Instrument: KOEHLER
Method: D93/1010A

Analysis Date: 3/17/2010
Analyst: 504
Dilution: 1

Analysis Time: 6:00 PM
Preparation Date:

CAS NO	Analyte	RL Deg. F	RESULTS Deg. F	FLAG
	Ignitability		SEE FOOTNOTE	

9045D

Analytic Batch: WG468253
Instrument: ACCUMET AB
Method: 9045D

Analysis Date: 3/18/2010
Analyst: 477
Dilution: 1

Analysis Time: 1:17 PM
Preparation Date:

CAS NO	Analyte	RL su	RESULTS su	FLAG
00010-29-7	pH		8.9	

9095B

Analytic Batch: WG467841
Instrument: NONE
Method: 9095B

Analysis Date: 3/16/2010
Analyst: 479
Dilution: 1

Analysis Time: 1:15 PM
Preparation Date:

CAS NO	Analyte	RL %	RESULTS %	FLAG
	Paint Filter Test		SEE FOOTNOTE	

Comments:

- 1) Sample results are reported as rounded values.
- 2) These results are applicable only to the items tested.

SAMPLE NUMBER
IDW-NB-031210

Customer : Sunset Analytical Laboratory
Source :
Location : Yuma
Lab Sample ID : L449295-02

Project : 1003033
Date Sampled : 3/12/2010 10:30 AM
Sampled By :
Date Received : 3/13/2010

7471

Analytic Batch: WG467638
Instrument: CVAA3
Method: 7471

Analysis Date: 3/16/2010
Analyst: 448
Dilution: 1

Analysis Time: 1:10 PM
Preparation Date: 3/14/2010 12:04

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
7439-97-6	Mercury	0.020	< 0.020	

6010B

Analytic Batch: WG467777
Instrument: ICP6
Method: 6010B

Analysis Date: 3/16/2010
Analyst: 178
Dilution: 1

Analysis Time: 5:16 PM
Preparation Date: 3/15/2010 2:08

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
7440-38-2	Arsenic	1.0	1.2	
7440-39-3	Barium	0.25	30	M1R2R8
7440-43-9	Cadmium	0.25	< 0.25	
7439-92-1	Lead	0.25	2.6	
7782-49-2	Selenium	1.0	< 1.0	
7440-22-4	Silver	0.50	< 0.50	

6010B

Analytic Batch: WG468108
Instrument: ICP6
Method: 6010B

Analysis Date: 3/17/2010
Analyst: 428
Dilution: 1

Analysis Time: 10:13
Preparation Date: 3/17/2010 9:56

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
7440-47-3	Chromium	0.50	2.2	

Comments:

- 1) Sample results are reported as rounded values.
- 2) These results are applicable only to the items tested.

SAMPLE NUMBER
IDW-NB-031210

Customer :	<u>Sunset Analytical Laboratory</u>	Project :	<u>1003033</u>
Source :		Date Sampled :	<u>3/12/2010 10:30 AM</u>
Location :	<u>Yuma</u>	Sampled By :	
Lab Sample ID :	<u>L449295-02</u>	Date Received :	<u>3/13/2010</u>

8015D/DRO_AZ

Analytic Batch: WG467805	Analysis Date: 3/17/2010	Analysis Time: 6:16
Instrument: SVGC2	Analyst: 280	Preparation Date: 3/15/2010 11:00
Method: 8015D/DRO_AZ	Dilution: 1	

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
	C10-C22 Hydrocarbons	30	54	
	C22-C32 Hydrocarbons	50	< 50	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
o-Terphenyl	77.7		

8270C

Analytic Batch: WG467671	Analysis Date: 3/16/2010	Analysis Time: 9:06 PM
Instrument: BNAMS4	Analyst: 145	Preparation Date: 3/14/2010 3:01
Method: 8270C	Dilution: 1	

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
83-32-9	Acenaphthene	0.033	< 0.033	
208-96-8	Acenaphthylene	0.033	< 0.033	
120-12-7	Anthracene	0.033	< 0.033	
92-87-5	Benzidine	0.33	< 0.33	
56-55-3	Benzo(a)anthracene	0.033	< 0.033	
205-99-2	Benzo(b)fluoranthene	0.033	< 0.033	
207-08-9	Benzo(k)fluoranthene	0.033	< 0.033	
191-24-2	Benzo(g,h,i)perylene	0.033	< 0.033	
50-32-8	Benzo(a)pyrene	0.033	< 0.033	
111-91-1	Bis(2-chlorethoxy)methane	0.33	< 0.33	
111-44-4	Bis(2-chloroethyl)ether	0.33	< 0.33	
108-60-1	Bis(2-chloroisopropyl)ether	0.33	< 0.33	
101-55-3	4-Bromophenyl-phenylether	0.33	< 0.33	
91-58-7	2-Chloronaphthalene	0.033	< 0.033	
7005-72-3	4-Chlorophenyl-phenylether	0.33	< 0.33	
218-01-9	Chrysene	0.033	< 0.033	
53-70-3	Dibenz(a,h)anthracene	0.033	< 0.033	
91-94-1	3,3-Dichlorobenzidine	0.33	< 0.33	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

SAMPLE NUMBER
IDW-NB-031210

Customer : Sunset Analytical Laboratory
Source :
Location : Yuma
Lab Sample ID : **L449295-02**

Project : 1003033
Date Sampled : 3/12/2010 10:30 AM
Sampled By :
Date Received : 3/13/2010

8270C

Analytic Batch: WG467671
Instrument: BNAMS4
Method: 8270C

Analysis Date: 3/16/2010
Analyst: 145
Dilution: 1

Analysis Time: 9:06 PM
Preparation Date: 3/14/2010 3:01

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
121-14-2	2,4-Dinitrotoluene	0.33	< 0.33	
606-20-2	2,6-Dinitrotoluene	0.33	< 0.33	
206-44-0	Fluoranthene	0.033	< 0.033	
86-73-7	Fluorene	0.033	< 0.033	
118-74-1	Hexachlorobenzene	0.33	< 0.33	
87-68-3	Hexachloro-1,3-butadiene	0.33	< 0.33	
77-47-4	Hexachlorocyclopentadiene	0.33	< 0.33	
67-72-1	Hexachloroethane	0.33	< 0.33	
193-39-5	Indeno(1,2,3-cd)pyrene	0.033	< 0.033	
78-59-1	Isophorone	0.33	< 0.33	
91-20-3	Naphthalene	0.033	< 0.033	
98-95-3	Nitrobenzene	0.33	< 0.33	
62-75-9	n-Nitrosodimethylamine	0.33	< 0.33	
86-30-6	n-Nitrosodiphenylamine	0.33	< 0.33	
621-64-7	n-Nitrosodi-n-propylamine	0.33	< 0.33	
85-01-8	Phenanthrene	0.033	< 0.033	
85-68-7	Benzylbutyl phthalate	0.33	< 0.33	
117-81-7	Bis(2-ethylhexyl)phthalate	0.33	< 0.33	
84-74-2	Di-n-butyl phthalate	0.33	< 0.33	
84-66-2	Diethyl phthalate	0.33	< 0.33	
131-11-3	Dimethyl phthalate	0.33	< 0.33	
117-84-0	Di-n-octyl phthalate	0.33	< 0.33	
129-00-0	Pyrene	0.033	< 0.033	
120-82-1	1,2,4-Trichlorobenzene	0.33	< 0.33	
59-50-7	4-Chloro-3-methylphenol	0.33	< 0.33	
95-57-8	2-Chlorophenol	0.33	< 0.33	
120-83-2	2,4-Dichlorophenol	0.33	< 0.33	
105-67-9	2,4-Dimethylphenol	0.33	< 0.33	L1
534-52-1	4,6-Dinitro-2-methylphenol	0.33	< 0.33	
51-28-5	2,4-Dinitrophenol	0.33	< 0.33	
88-75-5	2-Nitrophenol	0.33	< 0.33	
100-02-7	4-Nitrophenol	0.33	< 0.33	
87-86-5	Pentachlorophenol	0.33	< 0.33	

Comments:

- 1) Sample results are reported as rounded values.
- 2) These results are applicable only to the items tested.

SAMPLE NUMBER
IDW-NB-031210

Customer :	<u>Sunset Analytical Laboratory</u>	Project :	<u>1003033</u>
Source :		Date Sampled :	<u>3/12/2010 10:30 AM</u>
Location :	<u>Yuma</u>	Sampled By :	
Lab Sample ID :	<u>L449295-02</u>	Date Received :	<u>3/13/2010</u>

8270C

Analytic Batch: WG467671	Analysis Date: 3/16/2010	Analysis Time: 9:06 PM
Instrument: BNAMS4	Analyst: 145	Preparation Date: 3/14/2010 3:01
Method: 8270C	Dilution: 1	

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
108-95-2	Phenol	0.33	< 0.33	
88-06-2	2,4,6-Trichlorophenol	0.33	< 0.33	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
2-Fluorophenol	74.3		
Phenol-d5	74.8		
Nitrobenzene-d5	63.3		
2-Fluorobiphenyl	72.4		
2,4,6-Tribromophenol	75.6		
p-Terphenyl-d14	107		

8310

Analytic Batch: WG467808	Analysis Date: 3/17/2010	Analysis Time: 5:08 PM
Instrument: HPLC2	Analyst: 169	Preparation Date: 3/15/2010 3:16
Method: 8310	Dilution: 1	

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
120-12-7	Anthracene	0.020	< 0.020	
83-32-9	Acenaphthene	0.020	< 0.020	
208-96-8	Acenaphthylene	0.020	< 0.020	
56-55-3	Benzo(a)anthracene	0.020	< 0.020	
50-32-8	Benzo(a)pyrene	0.020	< 0.020	
205-99-2	Benzo(b)fluoranthene	0.020	< 0.020	
191-24-2	Benzo(g,h,i)perylene	0.020	< 0.020	
207-08-9	Benzo(k)fluoranthene	0.020	< 0.020	
218-01-9	Chrysene	0.020	< 0.020	
53-70-3	Dibenz(a,h)anthracene	0.020	< 0.020	
206-44-0	Fluoranthene	0.020	< 0.020	R5
86-73-7	Fluorene	0.020	< 0.020	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	< 0.020	M2

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

SAMPLE NUMBER
IDW-NB-031210

Customer :	<u>Sunset Analytical Laboratory</u>	Project :	<u>1003033</u>
Source :		Date Sampled :	<u>3/12/2010 10:30 AM</u>
Location :	<u>Yuma</u>	Sampled By :	
Lab Sample ID :	<u>L449295-02</u>	Date Received :	<u>3/13/2010</u>

8310

Analytic Batch: WG467808
Instrument: HPLC2
Method: 8310

Analysis Date: 3/17/2010
Analyst: 169
Dilution: 1

Analysis Time: 5:08 PM
Preparation Date: 3/15/2010 3:16

CAS NO	Analyte	RL mg/kg	RESULTS mg/kg	FLAG
91-20-3	Naphthalene	0.020	< 0.020	
85-01-8	Phenanthrene	0.020	< 0.020	
129-00-0	Pyrene	0.020	< 0.020	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
p-Terphenyl-d14	85.5		

LEGEND

RL - Reporting Limit
Did Not Ignite @ 170 F
Contains No Free Liquid
8.9@19.5c

QUALIFIERS

M1 - Matrix spike recovery was high, the method control sample recovery was acceptable.
R2 - RPD/RSD exceeded the laboratory acceptance limit.
R8 - Sample RPD exceeded the method acceptance limit.
L1 - The associated blank spike recovery was above laboratory acceptance limits.
R5 - MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
M2 - Matrix spike recovery was low, the method control sample recovery was acceptable.

Comments:

- 1) Sample results are reported as rounded values.
- 2) These results are applicable only to the items tested.



12065 Lebanon Rd
Mt. Juliet, TN 37122
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(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L449295
Sunset Analytical Laboratory

Test:	Ignitability by Method D93/1010A	Matrix:	Soil - mg/kg
Project No:	1003033	EPA ID:	TN00003
Project:	Yuma	Analytic Batch:	WG468217
Collection Date:	3/12/2010	Analyst:	504
Analysis Date:	3/17/2010 6:00:00 PM	Extraction Date:	3/17/2010
Instrument ID:	KOEHLER		
Sample Numbers:	L449295-02, -01		

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Ignitability	82.0	79.0	96.3	93 - 107	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Ignitability	82.0	80.0	97.6	93 - 107	



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Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Ignitability by Method D93/1010A			Matrix:	Soil - mg/kg
Project No:	1003033			EPA ID:	TN00003
Project:	Yuma			Analytic Batch:	WG468217
Collection Date:	3/12/2010			Analyst:	504
Analysis Date:	3/17/2010 6:00:00 PM			Extraction Date:	3/17/2010
Instrument ID:	KOEHLER				
Sample Numbers:	L449295-02, -01				

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Ignitability	82.0	79.0	96.3	80.0	97.6	93-107		1.3	20	

Sample Duplicate L449507-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Ignitability	0.000	0.000			

Sample Duplicate L449182-02

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Ignitability	0.000	0.000			



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Est. 1970

Quality Control Summary
SDG: L449295
Sunset Analytical Laboratory

Test:	Ignitability by Method D93/1010A	Matrix:	Soil - mg/kg
Project No:	1003033	EPA ID:	TN00003
Project:	Yuma	Analytic Batch:	WG468217
Collection Date:	3/12/2010	Analyst:	504
Analysis Date:	3/17/2010 6:00:00 PM	Extraction Date:	3/17/2010
Instrument ID:	KOEHLER		
Sample Numbers:	L449295-02, -01		

Sample Duplicate
L449348-06

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Ignitability	0.000	0.000			



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Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L449295
Sunset Analytical Laboratory

Test:	Paint Filter Test by Method 9095B	Matrix:	Soil - mg/kg
Project No:	1003033	EPA ID:	TN00003
Project:	Yuma	Analytic Batch:	WG467841
Collection Date:	3/12/2010	Analyst:	479
Analysis Date:	3/16/2010 1:15:00 PM	Extraction Date:	3/15/2010
Instrument ID:	NONE		
Sample Numbers:	L449295-01, -02		

Sample Duplicate
L449272-02

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Paint Filter Test	0.000	0.000			

Quality Control Summary
SDG: L449295
Sunset Analytical Laboratory

Test:	pH by Method 9045D	Matrix:	Soil - mg/kg
Project No:	1003033	EPA ID:	TN00003
Project:	Yuma	Analytic Batch:	WG468253
Collection Date:	3/12/2010	Analyst:	477
Analysis Date:	3/18/2010 1:17:00 PM	Extraction Date:	3/17/2010
Instrument ID:	ACCUMET AB		
Sample Numbers:	L449295-01, -02		

Method Blank

Analyte	CAS	PQL	Qualifiers
pH		4.80	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
pH	6.46	6.40	99.1	97.9 - 100.8	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
pH	6.46	6.40	99.1	97.9 - 100.8	



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Est. 1970

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test: pH by Method 9045D
Project No: 1003033
Project: Yuma
Collection Date: 3/12/2010
Analysis Date: 3/18/2010 1:17:00 PM
Instrument ID: ACCUMET AB
Sample Numbers: L449295-01, -02

Matrix: Soil - mg/kg
EPA ID: TN00003
Analytic Batch: WG468253
Analyst: 477
Extraction Date: 3/17/2010

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
pH	6.46	6.40	99.1	6.40	99.1	97.9-100.8		0.0	20	

Sample Duplicate L449585-21

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
pH	6.40	6.40	0.0	1	

Sample Duplicate L449585-31

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
pH	7.30	7.30	0.0	1	



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Quality Control Summary
SDG: L449295
Sunset Analytical Laboratory

Test:	Mercury by Method 7471	Matrix:	Soil - mg/kg
Project No:	1003033	EPA ID:	TN00003
Project:	Yuma	Analytic Batch:	WG467638
Collection Date:	3/12/2010	Analyst:	448
Analysis Date:	3/16/2010 1:10:00 PM	Extraction Date:	3/14/2010
Instrument ID:	CVAA3		
Sample Numbers:	L449295-02, -01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Mercury		<0.020	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Mercury	8.77	10.5	120	71.6 - 127.7	



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Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Mercury by Method 7471	Matrix:	Soil - mg/kg
Project No:	1003033	EPA ID:	TN00003
Project:	Yuma	Analytic Batch:	WG467638
Collection Date:	3/12/2010	Analyst:	448
Analysis Date:	3/16/2010 1:10:00 PM	Extraction Date:	3/14/2010
Instrument ID:	CVAA3		
Sample Numbers:	L449295-02, -01		

Sample Duplicate

L449211-13

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Mercury	0.020	0.021			

Matrix Spike/Matrix Spike Duplicate

L449211-13

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Mercury	0.250	0.020	0.295	110	0.312	117	70-130		5.6	20	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Trace Metals by Method 6010B		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467777
Analysis Date:	3/16/2010	Analyst:	178
Instrument ID:	ICP6	Extraction Date:	3/15/2010
Sample Numbers:	L449295-01, -02		

Method Blank

Analyte	CAS	PQL	Qualifiers
Arsenic	7440-38-2	<1.00	
Barium	7440-39-3	<0.250	
Cadmium	7440-43-9	<0.250	
Lead	7439-92-1	<0.250	
Selenium	7782-49-2	<1.00	
Silver	7440-22-4	<0.500	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Arsenic	192	161	83.9	78.6 - 120.8	
Barium	420	379	90.2	78.8 - 121.4	
Cadmium	70.1	57.1	81.5	78.5 - 121.5	
Lead	113	100	88.5	77.3 - 122.1	
Selenium	176	144	81.8	75.6 - 125	
Silver	115	107	93.0	66 - 133.9	



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Quality Control Summary
SDG: L449295
Sunset Analytical Laboratory

Test: Trace Metals by Method 6010B
Project No: 1003033
Project: Yuma
Collection Date: 3/12/2010
Analysis Date: 3/17/2010
Instrument ID: ICP6
Sample Numbers: L449295-02, -01

Matrix: Soil - mg/kg
EPA ID: TN00003
Analytic Batch: WG468108
Analyst: 428
Extraction Date: 3/17/2010

Method Blank

Analyte	CAS	PQL	Qualifiers
Chromium	7440-47-3	<0.500	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Chromium	168	148	88.1	80.4 - 120.2	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Trace Metals by Method 6010B		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467777
Analysis Date:	3/16/2010	Analyst:	178
Instrument ID:	ICP6	Extraction Date:	3/15/2010
Sample Numbers:	L449295-01, -02		

Sample Duplicate

L449295-02

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Arsenic	1.22	1.20	1.7	20	
Barium	47.9	30.0	46	20	R8
Cadmium	0.0000	0.0000			
Lead	2.44	2.60	6.3	20	
Selenium	0.0000	0.0000			
Silver	0.0000	0.0000			

Matrix Spike/Matrix Spike Duplicate

L449295-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Arsenic	50.0	1.20	46.4	90.4	43.7	85.0	75-125		6.0	20	
Barium	50.0	30.0	192	324	99.2	138	75-125	M1	64	20	R2
Cadmium	50.0	0.0000	43.2	86.4	41.0	82.0	75-125		5.2	20	
Lead	50.0	2.60	48.2	91.2	45.4	85.6	75-125		6.0	20	
Selenium	50.0	0.0000	42.7	85.4	40.1	80.2	75-125		6.3	20	
Silver	50.0	0.0000	48.1	96.2	46.1	92.2	75-125		4.2	20	



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Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Trace Metals by Method 6010B		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG468108
Analysis Date:	3/17/2010	Analyst:	428
Instrument ID:	ICP6	Extraction Date:	3/17/2010
Sample Numbers:	L449295-02, -01		

Sample Duplicate

L449415-05

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Chromium	7.74	7.80	0.8	20	

Matrix Spike/Matrix Spike Duplicate

L449415-05

Analyte	Spike Value	Sample	MS	% Rec		% Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
				Rec	MSD					
Chromium	50.0	7.80	52.2	88.8	54.7	93.8	75-125	4.7	20	



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Quality Control Summary
SDG: L449295
Sunset Analytical Laboratory

Test:	Diesel Range Organics by Method 8015	Matrix:	Soil - mg/kg
Project No:	1003033	EPA ID:	TN00003
Project:	Yuma	Analytic Batch:	WG467805
Collection Date:	3/12/2010	Analyst:	280
Analysis Date:	3/17/2010	Extraction Date:	3/15/2010
Instrument ID:	SVGC2		
Sample Numbers:	L449295-01, -02		

Method Blank

Analyte	CAS	PQL	Qualifiers
C10-C22 Hydrocarbons		<4.0	
C22-C32 Hydrocarbons		<50.0	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
C10-C32 Hydrocarbons	60.0	49.3	82.1	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
C10-C32 Hydrocarbons	60.0	50.4	84.1	70 - 130	



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Quality Control Summary
SDG: L449295
Sunset Analytical Laboratory

Test:	Diesel Range Organics by Method 8015		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467805
Analysis Date:	3/17/2010	Analyst:	280
Instrument ID:	SVGC2	Extraction Date:	3/15/2010
Sample Numbers:	L449295-01, -02		

Surrogate Summary

Laboratory Sample ID	o-terphenylID ppm	% Rec
Blank WG467805	0.681	85.2
LCS WG467805	0.638	79.8
LCSD WG467805	0.652	81.5
MS WG467805	0.662	82.8
MSD WG467805	0.628	78.5
L449295-01	0.657	82.1
L449295-02	0.621	77.7

o-terphenyl Limits - 70 - 130



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Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Diesel Range Organics by Method 8015			Matrix:	Soil - mg/kg
Project No:	1003033	EPA ID:	TN00003	Analytic Batch:	WG467805
Project:	Yuma	Analyst:	280	Extraction Date:	3/15/2010
Collection Date:	3/12/2010				
Analysis Date:	3/17/2010				
Instrument ID:	SVGC2				
Sample Numbers:	L449295-01, -02				

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	% Rec		% Rec		Control Limits	Qualifier	RPD	% Rec		Control Limits	Qualifier
		LCS	LCSD	Rec	LCSD				Rec	RPD		
C10-C32 Hydrocarbons	60.0	49.3	50.4	82.1	84.1	70-130		2.4			20	

Matrix Spike/Matrix Spike Duplicate

L449295-01

Analyte	Spike Value	Sample	% Rec		% Rec		Control Limits	% Rec Qualifier	RPD	Control Limits	RPD Qual
			MS	MSD	Rec	MSD					
C10-C32 Hydrocarbons	60.0	0.0	67.8	74.6	113	124	70-130		9.6	20	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-Volatiles by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Method Blank

Analyte	CAS	PQL	Qualifiers
n-Nitrosodimethylamine	62-75-9	<0.330	
Bis(2-chloroethyl)ether	111-44-4	<0.330	
Phenol	108-95-2	<0.330	
2-Chlorophenol	95-57-8	<0.330	
Bis(2-chloroisopropyl)ether	108-60-1	<0.330	
Hexachloroethane	67-72-1	<0.330	
n-Nitrosodi-n-propylamine	621-64-7	<0.330	
Nitrobenzene	98-95-3	<0.330	
Isophorone	78-59-1	<0.330	
2-Nitrophenol	88-75-5	<0.330	
2,4-Dimethylphenol	105-67-9	<0.330	
Bis(2-chlorethoxy)methane	111-91-1	<0.330	
2,4-Dichlorophenol	120-83-2	<0.330	
1,2,4-Trichlorobenzene	120-82-1	<0.330	
Naphthalene	91-20-3	<0.033	
Hexachloro-1,3-butadiene	87-68-3	<0.330	
4-Chloro-3-methylphenol	59-50-7	<0.330	
Hexachlorocyclopentadiene	77-47-4	<0.330	
2,4,6-Trichlorophenol	88-06-2	<0.330	
2-Chloronaphthalene	91-58-7	<0.033	
Acenaphthylene	208-96-8	<0.033	
Dimethyl phthalate	131-11-3	<0.330	
2,6-Dinitrotoluene	606-20-2	<0.330	
Acenaphthene	83-32-9	<0.033	
2,4-Dinitrophenol	51-28-5	<0.330	
2,4-Dinitrotoluene	121-14-2	<0.330	
4-Nitrophenol	100-02-7	<0.330	
Fluorene	86-73-7	<0.033	
4-Chlorophenyl-phenylether	7005-72-3	<0.330	
Diethyl phthalate	84-66-2	<0.330	
4,6-Dinitro-2-methylphenol	534-52-1	<0.330	
n-Nitrosodiphenylamine	86-30-6	<0.330	
4-Bromophenyl-phenylether	101-55-3	<0.330	
Hexachlorobenzene	118-74-1	<0.330	
Pentachlorophenol	87-86-5	<0.330	



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Quality Control Summary
SDG: L449295
Sunset Analytical Laboratory

Test: Semi-Volatiles by Method 8270C

Project No: 1003033

Project: Yuma

Collection Date: 3/12/2010

Analysis Date: 3/16/2010

Instrument ID: BNAMS2

Sample Numbers: L449295-01, -02

Matrix: Soil - mg/kg

EPA ID: TN00003

Analytic Batch: WG467671

Analyst: 145

Extraction Date: 3/14/2010

Method Blank

Analyte	CAS	PQL	Qualifiers
Phenanthrene	85-01-8	<0.033	
Anthracene	120-12-7	<0.033	
Di-n-butyl phthalate	84-74-2	<0.330	
Fluoranthene	206-44-0	<0.033	
Benzidine	92-87-5	<0.330	
Pyrene	129-00-0	<0.033	
Benzylbutyl phthalate	85-68-7	<0.330	
3,3-Dichlorobenzidine	91-94-1	<0.330	
Benzo(a)anthracene	56-55-3	<0.033	
Chrysene	218-01-9	<0.033	
Bis(2-ethylhexyl)phthalate	117-81-7	<0.330	
Di-n-octyl phthalate	117-84-0	<0.330	
Benzo(b)fluoranthene	205-99-2	<0.033	
Benzo(k)fluoranthene	207-08-9	<0.033	
Benzo(a)pyrene	50-32-8	<0.033	
Indeno(1,2,3-cd)pyrene	193-39-5	<0.033	
Dibenz(a,h)anthracene	53-70-3	<0.033	
Benzo(g,h,i)perylene	191-24-2	<0.033	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010 8:50:00 PM	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
1,2,4-Trichlorobenzene	0.333	0.268	80.6	46 - 99	
2,4,6-Trichlorophenol	0.333	0.275	82.6	56 - 109	
2,4-Dichlorophenol	0.333	0.295	88.5	54 - 107	
2,4-Dimethylphenol	0.333	0.445	134	58 - 119	L1
2,4-Dinitrophenol	0.333	0.266	79.9	16 - 130	
2,4-Dinitrotoluene	0.333	0.336	101	53 - 120	
2,6-Dinitrotoluene	0.333	0.324	97.4	56 - 113	
2-Chloronaphthalene	0.333	0.278	83.5	55 - 103	
2-Chlorophenol	0.333	0.284	85.4	52 - 108	
2-Nitrophenol	0.333	0.314	94.4	38 - 110	
3,3-Dichlorobenzidine	0.333	0.261	78.4	24 - 123	
4,6-Dinitro-2-methylphenol	0.333	0.241	72.4	34 - 111	
4-Bromophenyl-phenylether	0.333	0.297	89.3	47 - 98	
4-Chloro-3-methylphenol	0.333	0.316	95.0	54 - 116	
4-Chlorophenyl-phenylether	0.333	0.306	91.8	55 - 106	
4-Nitrophenol	0.333	0.282	84.8	34 - 123	
Acenaphthene	0.333	0.299	89.7	54 - 102	
Acenaphthylene	0.333	0.321	96.3	56 - 104	
Anthracene	0.333	0.331	99.5	57 - 112	
Benzidine	0.333	0.00195	0.6	0 - 13	
Benzo(a)anthracene	0.333	0.322	96.8	55 - 105	
Benzo(a)pyrene	0.333	0.371	111	59 - 114	
Benzo(b)fluoranthene	0.333	0.339	102	44 - 116	
Benzo(g,h,i)perylene	0.333	0.372	112	41 - 127	
Benzo(k)fluoranthene	0.333	0.358	107	36 - 119	
Benzylbutyl phthalate	0.333	0.363	109	57 - 130	
Bis(2-chlorethoxy)methane	0.333	0.337	101	52 - 107	
Bis(2-chloroethyl)ether	0.333	0.309	92.7	38 - 115	
Bis(2-chloroisopropyl)ether	0.333	0.326	98.0	49 - 106	
Bis(2-ethylhexyl)phthalate	0.333	0.364	109	50 - 130	
Chrysene	0.333	0.328	98.4	54 - 103	
Dibenz(a,h)anthracene	0.333	0.355	107	42 - 128	
Diethyl phthalate	0.333	0.333	100	57 - 110	
Dimethyl phthalate	0.333	0.322	96.7	57 - 108	
Di-n-butyl phthalate	0.333	0.330	99.1	56 - 121	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010 8:50:00 PM	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Di-n-octyl phthalate	0.333	0.382	115	50 - 128	
Fluoranthene	0.333	0.342	103	51 - 109	
Fluorene	0.333	0.315	94.7	53 - 106	
Hexachloro-1,3-butadiene	0.333	0.292	87.6	46 - 110	
Hexachlorobenzene	0.333	0.263	79.0	51 - 117	
Hexachlorocyclopentadiene	0.333	0.276	83.0	21 - 127	
Hexachloroethane	0.333	0.262	78.8	43 - 104	
Indeno(1,2,3-cd)pyrene	0.333	0.364	109	42 - 127	
Isophorone	0.333	0.299	89.8	56 - 116	
Naphthalene	0.333	0.296	88.9	46 - 97	
Nitrobenzene	0.333	0.295	88.6	46 - 102	
n-Nitrosodimethylamine	0.333	0.332	99.8	35 - 111	
n-Nitrosodi-n-propylamine	0.333	0.342	103	54 - 113	
n-Nitrosodiphenylamine	0.333	0.310	92.9	66 - 126	
Pentachlorophenol	0.333	0.249	74.9	37 - 118	
Phenanthrene	0.333	0.303	90.9	56 - 102	
Phenol	0.333	0.295	88.5	55 - 115	
Pyrene	0.333	0.315	94.5	53 - 111	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010 8:50:00 PM	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
1,2,4-Trichlorobenzene	0.333	0.258	77.4	46 - 99	
2,4,6-Trichlorophenol	0.333	0.257	77.3	56 - 109	
2,4-Dichlorophenol	0.333	0.284	85.3	54 - 107	
2,4-Dimethylphenol	0.333	0.420	126	58 - 119	L1
2,4-Dinitrophenol	0.333	0.247	74.1	16 - 130	
2,4-Dinitrotoluene	0.333	0.289	86.8	53 - 120	
2,6-Dinitrotoluene	0.333	0.296	88.8	56 - 113	
2-Chloronaphthalene	0.333	0.267	80.3	55 - 103	
2-Chlorophenol	0.333	0.272	81.6	52 - 108	
2-Nitrophenol	0.333	0.292	87.7	38 - 110	
3,3-Dichlorobenzidine	0.333	0.237	71.2	24 - 123	
4,6-Dinitro-2-methylphenol	0.333	0.232	69.8	34 - 111	
4-Bromophenyl-phenylether	0.333	0.305	91.7	47 - 98	
4-Chloro-3-methylphenol	0.333	0.301	90.5	54 - 116	
4-Chlorophenyl-phenylether	0.333	0.294	88.3	55 - 106	
4-Nitrophenol	0.333	0.229	68.9	34 - 123	
Acenaphthene	0.333	0.290	87.2	54 - 102	
Acenaphthylene	0.333	0.298	89.5	56 - 104	
Anthracene	0.333	0.308	92.5	57 - 112	
Benidine	0.333	0.00179	0.5	0 - 13	
Benzo(a)anthracene	0.333	0.313	93.9	55 - 105	
Benzo(a)pyrene	0.333	0.352	106	59 - 114	
Benzo(b)fluoranthene	0.333	0.325	97.7	44 - 116	
Benzo(g,h,i)perylene	0.333	0.352	106	41 - 127	
Benzo(k)fluoranthene	0.333	0.349	105	36 - 119	
Benzylbutyl phthalate	0.333	0.382	115	57 - 130	
Bis(2-chlorethoxy)methane	0.333	0.322	96.6	52 - 107	
Bis(2-chloroethyl)ether	0.333	0.289	86.7	38 - 115	
Bis(2-chloroisopropyl)ether	0.333	0.313	94.0	49 - 106	
Bis(2-ethylhexyl)phthalate	0.333	0.387	116	50 - 130	
Chrysene	0.333	0.307	92.1	54 - 103	
Dibenz(a,h)anthracene	0.333	0.346	104	42 - 128	
Diethyl phthalate	0.333	0.305	91.6	57 - 110	
Dimethyl phthalate	0.333	0.314	94.2	57 - 108	
Di-n-butyl phthalate	0.333	0.330	99.1	56 - 121	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010 8:50:00 PM	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Di-n-octyl phthalate	0.333	0.366	110	50 - 128	
Fluoranthene	0.333	0.300	90.0	51 - 109	
Fluorene	0.333	0.284	85.2	53 - 106	
Hexachloro-1,3-butadiene	0.333	0.283	84.9	46 - 110	
Hexachlorobenzene	0.333	0.270	81.2	51 - 117	
Hexachlorocyclopentadiene	0.333	0.272	81.6	21 - 127	
Hexachloroethane	0.333	0.249	74.6	43 - 104	
Indeno(1,2,3-cd)pyrene	0.333	0.343	103	42 - 127	
Isophorone	0.333	0.281	84.3	56 - 116	
Naphthalene	0.333	0.283	84.9	46 - 97	
Nitrobenzene	0.333	0.280	84.0	46 - 102	
n-Nitrosodimethylamine	0.333	0.307	92.1	35 - 111	
n-Nitrosodi-n-propylamine	0.333	0.330	99.1	54 - 113	
n-Nitrosodiphenylamine	0.333	0.301	90.4	66 - 126	
Pentachlorophenol	0.333	0.240	72.1	37 - 118	
Phenanthrene	0.333	0.284	85.4	56 - 102	
Phenol	0.333	0.290	87.2	55 - 115	
Pyrene	0.333	0.317	95.1	53 - 111	



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Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-Volatiles by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Surrogate Summary

Laboratory Sample ID	NBZ		FBP		TPH		2FP		PHL		TBP	
	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec
LCS WG467671	9070	90.7	8640	86.4	10400	104	18300	91.4	19100	95.6	17100	85.4
LCSD WG467671	8720	87.2	8230	82.3	9580	95.8	17700	88.5	18000	89.8	16700	83.6
Blank WG467671	7840	78.4	8510	85.1	10100	101	17900	89.6	18000	90.0	15100	75.5
MS WG467671	8250	82.5	8080	80.8	9800	98.0	17100	85.3	17300	86.5	18300	91.6
MSD WG467671	8420	84.2	8360	83.6	10900	109	17300	86.5	17600	87.8	18600	92.9
L449295-01	5630	56.2	7810	78.1	9880	98.8	14400	71.9	15400	76.8	16800	83.8
L449295-02	6330	63.3	7240	72.4	10700	107	14900	74.3	15000	74.8	15100	75.6

NBZ - Nitrobenzene-d5	18-119
FBP - 2-Fluorobiphenyl	30-120
TPH - Terphneyl-d14	23-143
2FP - 2-Fluorophenol	26-130
PHL - Phenol-d5	37-141
TBP - 2,4,6-Tribromophenol	25-137

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010 8:50:00 PM	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Matrix Spike/Matrix Spike Duplicate

L449149-04

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
1,2,4-Trichlorobenzene	0.333	0.00000	0.246	74.0	0.242	72.6	37-104		1.9	26	
2,4,6-Trichlorophenol	0.333	0.00000	0.269	80.8	0.272	81.8	27-128		1.1	31	
2,4-Dichlorophenol	0.333	0.00000	0.286	85.8	0.287	86.1	39-116		0.3	23	
2,4-Dimethylphenol	0.333	0.00000	0.408	123	0.403	121	50-119	M6	1.3	27	
2,4-Dinitrophenol	0.333	0.00000	0.251	75.3	0.241	72.5	10-123		3.9	42	
2,4-Dinitrotoluene	0.333	0.00000	0.328	98.5	0.343	103	52-121		4.5	23	
2,6-Dinitrotoluene	0.333	0.00000	0.310	93.2	0.322	96.8	53-114		3.8	22	
2-Chloronaphthalene	0.333	0.00000	0.268	80.5	0.272	81.5	52-101		1.3	20	
2-Chlorophenol	0.333	0.00000	0.266	79.8	0.270	81.0	41-112		1.6	27	
2-Nitrophenol	0.333	0.00000	0.307	92.3	0.303	91.1	23-117		1.3	31	
3,3-Dichlorobenzidine	0.333	0.00000	0.241	72.5	0.245	73.6	10-133		1.5	41	
4,6-Dinitro-2-methylphenol	0.333	0.00000	0.238	71.4	0.240	72.0	10-124		0.9	38	
4-Bromophenyl-phenylether	0.333	0.00000	0.282	84.6	0.282	84.7	37-103		0.0	23	
4-Chloro-3-methylphenol	0.333	0.00000	0.297	89.1	0.317	95.2	52-119		6.6	24	
4-Chlorophenyl-phenylether	0.333	0.00000	0.309	92.8	0.315	94.6	53-105		1.9	20	
4-Nitrophenol	0.333	0.00000	0.288	86.4	0.305	91.6	15-140		5.8	40	
Acenaphthene	0.333	0.00000	0.283	84.9	0.288	86.5	52-102		1.8	23	
Acenaphthylene	0.333	0.00000	0.307	92.2	0.311	93.3	54-103		1.2	22	
Anthracene	0.333	0.00000	0.305	91.5	0.308	92.4	55-114		0.9	21	
Benzidine	0.333	0.00000	0.00096	0.3	0.00106	0.3	0-45		9.6	50	
Benzo(a)anthracene	0.333	0.00000	0.301	90.2	0.305	91.5	37-124		1.4	33	
Benzo(a)pyrene	0.333	0.00000	0.344	103	0.342	103	44-129		0.6	27	
Benzo(b)fluoranthene	0.333	0.00000	0.351	105	0.342	103	28-135		2.6	33	
Benzo(g,h,i)perylene	0.333	0.00000	0.217	65.0	0.213	63.8	25-123		1.9	35	
Benzo(k)fluoranthene	0.333	0.00000	0.379	114	0.374	112	41-116		1.4	34	
Benzylbutyl phthalate	0.333	0.00000	0.353	106	0.368	110	45-143		4.2	39	
Bis(2-chlorethoxy)methane	0.333	0.00000	0.297	89.1	0.307	92.1	48-108		3.3	23	
Bis(2-chloroethyl)ether	0.333	0.00000	0.259	77.9	0.293	87.9	36-115		12	30	
Bis(2-chloroisopropyl)ether	0.333	0.00000	0.294	88.2	0.294	88.3	44-109		0.1	27	
Bis(2-ethylhexyl)phthalate	0.333	0.00000	0.344	103	0.361	108	40-128		4.8	34	
Chrysene	0.333	0.00000	0.307	92.1	0.313	94.0	39-119		2.1	31	
Dibenz(a,h)anthracene	0.333	0.00000	0.237	71.0	0.236	70.9	29-123		0.2	30	
Diethyl phthalate	0.333	0.00000	0.323	97.1	0.332	99.6	51-113		2.5	21	
Dimethyl phthalate	0.333	0.00000	0.317	95.1	0.332	99.7	54-108		4.8	23	
Di-n-butyl phthalate	0.333	0.00000	0.323	96.9	0.333	99.9	49-121		3.0	22	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010 8:50:00 PM	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Matrix Spike/Matrix Spike Duplicate

L449149-04

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Di-n-octyl phthalate	0.333	0.00000	0.364	109	0.387	116	40-132		6.0	27	
Fluoranthene	0.333	0.00000	0.318	95.6	0.330	99.0	23-143		3.5	29	
Fluorene	0.333	0.00000	0.299	89.9	0.306	91.9	53-107		2.3	22	
Hexachloro-1,3-butadiene	0.333	0.00000	0.289	86.7	0.274	82.2	39-113		5.3	26	
Hexachlorobenzene	0.333	0.00000	0.248	74.4	0.247	74.2	49-108		0.4	27	
Hexachlorocyclopentadiene	0.333	0.00000	0.208	62.5	0.220	66.1	10-131		5.7	39	
Hexachloroethane	0.333	0.00000	0.240	72.0	0.239	71.9	25-118		0.2	35	
Indeno(1,2,3-cd)pyrene	0.333	0.00000	0.229	68.6	0.235	70.5	28-125		2.7	32	
Isophorone	0.333	0.00000	0.267	80.3	0.271	81.5	51-115		1.4	22	
Naphthalene	0.333	0.00000	0.269	80.7	0.267	80.2	41-100		0.7	26	
Nitrobenzene	0.333	0.00000	0.263	79.0	0.256	76.8	40-102		2.8	24	
n-Nitrosodimethylamine	0.333	0.00000	0.298	89.6	0.302	90.6	20-116		1.1	38	
n-Nitrosodi-n-propylamine	0.333	0.00000	0.299	89.7	0.320	96.2	54-110		7.1	23	
n-Nitrosodiphenylamine	0.333	0.00000	0.283	85.0	0.288	86.5	54-138		1.8	26	
Pentachlorophenol	0.333	0.00000	0.263	79.1	0.265	79.7	10-146		0.8	35	
Phenanthrene	0.333	0.00000	0.271	81.3	0.281	84.2	37-125		3.6	27	
Phenol	0.333	0.00000	0.261	78.3	0.269	80.8	52-111		3.1	22	
Pyrene	0.333	0.00000	0.278	83.5	0.286	85.9	22-151		2.8	38	



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Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010 8:50:00 PM	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
1,2,4-Trichlorobenzene	0.333	0.268	80.6	0.258	77.4	46-99		4.0	24	
2,4,6-Trichlorophenol	0.333	0.275	82.6	0.257	77.3	56-109		6.6	20	
2,4-Dichlorophenol	0.333	0.295	88.5	0.284	85.3	54-107		3.7	21	
2,4-Dimethylphenol	0.333	0.445	134	0.420	126	58-119	L1	5.8	23	
2,4-Dinitrophenol	0.333	0.266	79.9	0.247	74.1	16-130		7.6	45	
2,4-Dinitrotoluene	0.333	0.336	101	0.289	86.8	53-120		15	23	
2,6-Dinitrotoluene	0.333	0.324	97.4	0.296	88.8	56-113		9.3	22	
2-Chloronaphthalene	0.333	0.278	83.5	0.267	80.3	55-103		3.9	20	
2-Chlorophenol	0.333	0.284	85.4	0.272	81.6	52-108		4.5	24	
2-Nitrophenol	0.333	0.314	94.4	0.292	87.7	38-110		7.4	24	
3,3-Dichlorobenzidine	0.333	0.261	78.4	0.237	71.2	24-123		9.6	35	
4,6-Dinitro-2-methylphenol	0.333	0.241	72.4	0.232	69.8	34-111		3.7	33	
4-Bromophenyl-phenylether	0.333	0.297	89.3	0.305	91.7	47-98		2.7	23	
4-Chloro-3-methylphenol	0.333	0.316	95.0	0.301	90.5	54-116		4.8	23	
4-Chlorophenyl-phenylether	0.333	0.306	91.8	0.294	88.3	55-106		3.9	22	
4-Nitrophenol	0.333	0.282	84.8	0.229	68.9	34-123		21	36	
Acenaphthene	0.333	0.299	89.7	0.290	87.2	54-102		2.8	20	
Acenaphthylene	0.333	0.321	96.3	0.298	89.5	56-104		7.3	20	
Anthracene	0.333	0.331	99.5	0.308	92.5	57-112		7.3	21	
Benzidine	0.333	0.00195	0.6	0.00179	0.5	0-13		8.5	50	
Benzo(a)anthracene	0.333	0.322	96.8	0.313	93.9	55-105		3.0	21	
Benzo(a)pyrene	0.333	0.371	111	0.352	106	59-114		5.2	22	
Benzo(b)fluoranthene	0.333	0.339	102	0.325	97.7	44-116		4.2	33	
Benzo(g,h,i)perylene	0.333	0.372	112	0.352	106	41-127		5.6	29	
Benzo(k)fluoranthene	0.333	0.358	107	0.349	105	36-119		2.6	37	
Benzylbutyl phthalate	0.333	0.363	109	0.382	115	57-130		5.2	27	
Bis(2-chloroethoxy)methane	0.333	0.337	101	0.322	96.6	52-107		4.7	21	
Bis(2-chloroethyl)ether	0.333	0.309	92.7	0.289	86.7	38-115		6.7	28	
Bis(2-chloroisopropyl)ether	0.333	0.326	98.0	0.313	94.0	49-106		4.2	25	
Bis(2-ethylhexyl)phthalate	0.333	0.364	109	0.387	116	50-130		6.1	29	
Chrysene	0.333	0.328	98.4	0.307	92.1	54-103		6.6	23	
Dibenz(a,h)anthracene	0.333	0.355	107	0.346	104	42-128		2.6	28	
Diethyl phthalate	0.333	0.333	100	0.305	91.6	57-110		8.8	20	
Dimethyl phthalate	0.333	0.322	96.7	0.314	94.2	57-108		2.7	20	
Di-n-butyl phthalate	0.333	0.330	99.1	0.330	99.1	56-121		0.0	22	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010 8:50:00 PM	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	% Rec			% Control			Qualifier	% Control			Qualifier
		LCS	Rec	LCSD	Rec	Limits	Qualifier		RPD	Limits	Qualifier	
Di-n-octyl phthalate	0.333	0.382	115	0.366	110	50-128			4.5	26		
Fluoranthene	0.333	0.342	103	0.300	90.0	51-109			13	26		
Fluorene	0.333	0.315	94.7	0.284	85.2	53-106			11	20		
Hexachloro-1,3-butadiene	0.333	0.292	87.6	0.283	84.9	46-110			3.2	25		
Hexachlorobenzene	0.333	0.263	79.0	0.270	81.2	51-117			2.8	24		
Hexachlorocyclopentadiene	0.333	0.276	83.0	0.272	81.6	21-127			1.7	40		
Hexachloroethane	0.333	0.262	78.8	0.249	74.6	43-104			5.4	27		
Indeno(1,2,3-cd)pyrene	0.333	0.364	109	0.343	103	42-127			5.9	28		
Isophorone	0.333	0.299	89.8	0.281	84.3	56-116			6.4	21		
Naphthalene	0.333	0.296	88.9	0.283	84.9	46-97			4.6	23		
Nitrobenzene	0.333	0.295	88.6	0.280	84.0	46-102			5.3	23		
n-Nitrosodimethylamine	0.333	0.332	99.8	0.307	92.1	35-111			8.1	35		
n-Nitrosodi-n-propylamine	0.333	0.342	103	0.330	99.1	54-113			3.7	21		
n-Nitrosodiphenylamine	0.333	0.310	92.9	0.301	90.4	66-126			2.8	22		
Pentachlorophenol	0.333	0.249	74.9	0.240	72.1	37-118			3.8	28		
Phenanthrene	0.333	0.303	90.9	0.284	85.4	56-102			6.2	20		
Phenol	0.333	0.295	88.5	0.290	87.2	55-115			1.5	22		
Pyrene	0.333	0.315	94.5	0.317	95.1	53-111			0.7	26		

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-Volatiles by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers: L449295-01, -02			

Internal Standard Response and Retention Time Summary

FileID:0316_02.D

Date:3/16/2010

Time:10:46 AM

	IS1		IS2		IS3	
	Response	RT	Response	RT	Response	RT
12 Hour Std	100038	5.24	378311	5.98	204150	7.01
Upper Limit	200076	5.74	756622	6.48	408300	7.51
Lower Limit	50019	4.74	189155.5	5.48	102075	6.51
Sample ID	Response	RT	Response	RT	Response	RT
Blank WG467671	103349	5.25	394810	5.99	213334	7.02
LCS WG467671	93623	5.25	365233	5.99	207943	7.02
LCSD WG467671	103121	5.25	403793	5.99	228294	7.02
MS WG467671	70219	5.26	275947	5.99	155405	7.02
MSD WG467671	75262	5.26	302186	5.99	173215	7.02

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-Volatiles by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010	Analyst:	145
Instrument ID:	BNAMS4	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Internal Standard Response and Retention Time Summary

FileID:0316_02.D

Date:3/16/2010

Time:10:46 AM

	IS4		IS5		IS6	
	Response	RT	Response	RT	Response	RT
12 Hour Std	309992	7.88	268605	9.91	229867	12.11
Upper Limit	619984	8.38	537210	10.41	459734	12.61
Lower Limit	154996	7.38	134302.5	9.41	114933.5	11.61
Sample ID	Response	RT	Response	RT	Response	RT
Blank WG467671	285067	7.88	178697	9.91	130287	12.12
LCS WG467671	320269	7.88	248349	9.91	197638	12.12
LCSD WG467671	315909	7.88	216616	9.91	160569	12.12
MS WG467671	257776	7.89	214230	9.92	125922	12.12
MSD WG467671	286039	7.89	241144	9.92	148259	12.12



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Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test: Semi-Volatiles by Method 8270C
Project No: 1003033
Project: Yuma
Collection Date: 3/12/2010
Analysis Date: 3/16/2010
Instrument ID: BNAMS2
Sample Numbers: L449295-01, -02

Matrix: Soil - mg/kg
EPA ID: TN00003
Analytic Batch: WG467671
Analyst: 145
Extraction Date: 3/14/2010

Internal Standard Response and Retention Time Summary

FileID:0316_04.D

Date:3/16/2010

Time:11:21 AM

	IS1		IS2		IS3	
	Response	RT	Response	RT	Response	RT
12 Hour Std	39889	4.79	153743	5.55	76790	6.57
Upper Limit	79778	5.29	307486	6.05	153580	7.07
Lower Limit	19944.5	4.29	76871.5	5.05	38395	6.07
Sample ID	Response	RT	Response	RT	Response	RT
L449295-01	38085	4.79	157237	5.55	81330	6.57
L449295-02	33745	4.79	137261	5.54	71326	6.57

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Semi-Volatiles by Method 8270C		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467671
Analysis Date:	3/16/2010	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/14/2010
Sample Numbers:	L449295-01, -02		

Internal Standard Response and Retention Time Summary

FileID:0316_04.D

Date:3/16/2010

Time:11:21 AM

	IS4		IS5		IS6		
	Response	RT	Response	RT	Response	RT	
12 Hour Std	125256	7.44	103603	8.98	93675	10.07	
Upper Limit	250512	7.94	207206	9.48	187350	10.57	
Lower Limit	62628	6.94	51801.5	8.48	46837.5	9.57	
Sample ID	Response	RT	Response	RT	Response	RT	
L449295-01	132769	7.44	92649	8.98	52139	10.07	
L449295-02	116509	7.44	75208	8.98	24155	10.07	*



12065 Lebanon Rd
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax ID 62-0814289
Est. 1970

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Polynuclear Aromatic Hydrocarbons by Method 8310		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467808
Analysis Date:	3/17/2010	Analyst:	169
Instrument ID:	HPLC2	Extraction Date:	3/15/2010
Sample Numbers:	L449295-01, -02		

Method Blank

Analyte	CAS	PQL	Qualifiers
Naphthalene	91-20-3	<0.0200	
Acenaphthylene	208-96-8	<0.0200	
Acenaphthene	83-32-9	<0.0200	
Fluorene	86-73-7	<0.0200	
Phenanthrene	85-01-8	<0.0200	
Anthracene	120-12-7	<0.0200	
Fluoranthene	206-44-0	<0.0200	
Pyrene	129-00-0	<0.0200	
Benzo(a)anthracene	56-55-3	<0.0200	
Chrysene	218-01-9	<0.0200	
Benzo(b)fluoranthene	205-99-2	<0.0200	
Benzo(k)fluoranthene	207-08-9	<0.0200	
Benzo(a)pyrene	50-32-8	<0.0200	
Dibenz(a,h)anthracene	53-70-3	<0.0200	
Benzo(g,h,i)perylene	191-24-2	<0.0200	
Indeno(1,2,3-cd)pyrene	193-39-5	<0.0200	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Polynuclear Aromatic Hydrocarbons by Method 8310		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467808
Analysis Date:	3/17/2010	Analyst:	169
Instrument ID:	HPLC2	Extraction Date:	3/15/2010
Sample Numbers:	L449295-01, -02		

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Naphthalene	1.32	0.977	74.0	11 - 104	
Acenaphthylene	1.32	1.00	75.9	33 - 118	
Acenaphthene	1.32	1.01	76.9	22 - 139	
Fluorene	1.32	1.03	78.2	47 - 126	
Phenanthrene	1.32	1.05	79.2	63 - 118	
Anthracene	1.32	1.01	76.9	65 - 119	
Fluoranthene	1.32	1.07	81.2	76 - 121	
Pyrene	1.32	1.04	78.8	77 - 125	
Benzo(a)anthracene	1.32	1.05	79.2	77 - 123	
Chrysene	1.32	1.04	79.2	79 - 125	
Benzo(b)fluoranthene	1.32	0.999	75.7	68 - 110	
Benzo(k)fluoranthene	1.32	0.983	74.4	70 - 124	
Benzo(a)pyrene	1.32	0.997	75.5	68 - 118	
Dibenz(a,h)anthracene	1.32	0.939	71.2	64 - 121	
Benzo(g,h,i)perylene	1.32	1.03	78.3	57 - 118	
Indeno(1,2,3-cd)pyrene	1.32	0.905	68.5	62 - 121	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Polynuclear Aromatic Hydrocarbons by Method 8310		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467808
Analysis Date:	3/17/2010	Analyst:	169
Instrument ID:	HPLC2	Extraction Date:	3/15/2010
Sample Numbers:	L449295-01, -02		

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Naphthalene	1.32	0.958	72.6	11 - 104	
Acenaphthylene	1.32	1.02	77.1	33 - 118	
Acenaphthene	1.32	1.03	78.0	22 - 139	
Fluorene	1.32	1.06	80.0	47 - 126	
Phenanthrene	1.32	1.08	81.9	63 - 118	
Anthracene	1.32	1.06	80.0	65 - 119	
Fluoranthene	1.32	1.13	85.6	76 - 121	
Pyrene	1.32	1.10	83.6	77 - 125	
Benzo(a)anthracene	1.32	1.11	83.8	77 - 123	
Chrysene	1.32	1.11	83.9	79 - 125	
Benzo(b)fluoranthene	1.32	1.06	80.4	68 - 110	
Benzo(k)fluoranthene	1.32	1.04	78.6	70 - 124	
Benzo(a)pyrene	1.32	1.06	80.0	68 - 118	
Dibenz(a,h)anthracene	1.32	0.997	75.5	64 - 121	
Benzo(g,h,i)perylene	1.32	1.10	83.3	57 - 118	
Indeno(1,2,3-cd)pyrene	1.32	0.962	72.8	62 - 121	



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Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Polynuclear Aromatic Hydrocarbons by Method 8310		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467808
Analysis Date:	3/17/2010	Analyst:	169
Instrument ID:	HPLC2	Extraction Date:	3/15/2010
Sample Numbers:	L449295-01, -02		

Surrogate Summary

Laboratory Sample ID	p-TRP	
	ppm	% Rec
Blank WG467808	0.147	88.2
LCS WG467808	0.133	79.8
LCSD WG467808	0.137	82.2
MS WG467808	0.152	91.2
MSD WG467808	0.182	109
L449295-01	0.203	122
L449295-02	0.143	85.5

p-Terphenyl-d14 0.16665 ppm Limits - 62 - 137

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Polynuclear Aromatic Hydrocarbons by Method 8310		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467808
Analysis Date:	3/17/2010	Analyst:	169
Instrument ID:	HPLC2	Extraction Date:	3/15/2010
Sample Numbers:	L449295-01, -02		

Matrix Spike/Matrix Spike Duplicate

L449295-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Naphthalene	1.32	0.0000	0.615	46.6	0.733	55.5	10-122		18	63	
Acenaphthylene	1.32	0.0000	0.687	52.0	0.865	65.5	22-133		23	40	
Acenaphthene	1.32	0.0000	0.692	52.4	0.875	66.3	10-159		23	44	
Fluorene	1.32	0.0000	0.720	54.5	0.906	68.7	21-144		23	49	
Phenanthrene	1.32	0.0000	0.698	52.9	0.898	68.0	45-135		25	28	
Anthracene	1.32	0.0000	1.17	88.3	1.38	104	47-137		17	26	
Fluoranthene	1.32	0.0000	0.794	60.1	0.992	75.2	49-140		22	20	R5
Pyrene	1.32	0.0000	0.985	74.6	1.18	89.7	38-161		18	31	
Benzo(a)anthracene	1.32	0.0000	0.684	51.8	0.853	64.6	44-147		22	26	
Chrysene	1.32	0.0000	0.640	48.5	0.812	61.5	48-150		24	26	
Benzo(b)fluoranthene	1.32	0.0000	0.648	49.1	0.815	61.8	47-121		23	28	
Benzo(k)fluoranthene	1.32	0.0000	0.627	47.5	0.785	59.5	47-135		22	24	
Benzo(a)pyrene	1.32	0.0000	0.613	46.4	0.765	58.0	46-129		22	25	
Dibenz(a,h)anthracene	1.32	0.0000	0.606	45.9	0.749	56.8	39-134		21	29	
Benzo(g,h,i)perylene	1.32	0.0000	0.620	47.0	0.790	59.9	39-125		24	35	
Indeno(1,2,3-cd)pyrene	1.32	0.0000	0.547	41.4	0.678	51.4	42-131	M2	21	32	

Quality Control Summary

SDG: L449295

Sunset Analytical Laboratory

Test:	Polynuclear Aromatic Hydrocarbons by Method 8310		
Project No:	1003033	Matrix:	Soil - mg/kg
Project:	Yuma	EPA ID:	TN00003
Collection Date:	3/12/2010	Analytic Batch:	WG467808
Analysis Date:	3/17/2010	Analyst:	169
Instrument ID:	HPLC2	Extraction Date:	3/15/2010
Sample Numbers:	L449295-01, -02		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	% LCS		% Rec		Control Limits	Qualifier	% RPD		Control Limits	Qualifier
		LCS	Rec	LCS	Rec			RPD	Limits		
Naphthalene	1.32	0.977	74.0	0.958	72.6	11-104		1.9	49		
Acenaphthylene	1.32	1.00	75.9	1.02	77.1	33-118		1.6	35		
Acenaphthene	1.32	1.01	76.9	1.03	78.0	22-139		1.5	36		
Fluorene	1.32	1.03	78.2	1.06	80.0	47-126		2.2	28		
Phenanthrene	1.32	1.05	79.2	1.08	81.9	63-118		3.4	20		
Anthracene	1.32	1.01	76.9	1.06	80.0	65-119		4.0	20		
Fluoranthene	1.32	1.07	81.2	1.13	85.6	76-121		5.3	20		
Pyrene	1.32	1.04	78.8	1.10	83.6	77-125		5.9	20		
Benzo(a)anthracene	1.32	1.05	79.2	1.11	83.8	77-123		5.6	20		
Chrysene	1.32	1.04	79.2	1.11	83.9	79-125		5.8	20		
Benzo(b)fluoranthene	1.32	0.999	75.7	1.06	80.4	68-110		6.0	20		
Benzo(k)fluoranthene	1.32	0.983	74.4	1.04	78.6	70-124		5.4	20		
Benzo(a)pyrene	1.32	0.997	75.5	1.06	80.0	68-118		5.7	20		
Dibenz(a,h)anthracene	1.32	0.939	71.2	0.997	75.5	64-121		5.9	25		
Benzo(g,h,i)perylene	1.32	1.03	78.3	1.10	83.3	57-118		6.1	28		
Indeno(1,2,3-cd)pyrene	1.32	0.905	68.5	0.962	72.8	62-121		6.1	26		

**SPECIAL WASTE PROFILE**

Page 1 of 2

Requested Disposal Facility: Copper Mountain LF AZ 4133

Waste Profile #

Saveable fill in form. Restrict printing until all required (yellow) fields are completed.

Sales Rep #.

I. Generator Information

Generator Name: Arizona Department of Environmental Quality

Generator Site Address: 20th & Factor WQARF Site, 655 East 20th Street

City: Yuma County: Yuma State: Arizona Zip: 85365

State ID/Reg No: N/A State Approval/Waste Code: N/A (if applicable) NAICS #: N/A

Generator Mailing Address (if different): ADEQ, 400 West Congress Street, Suite 433

City: Tucson County: Pima State: Arizona Zip: 85701

Generator Contact Name: Tina LePage Email: lepage.tina@azdeq.gov

Phone Number: (520) 628-6663 Ext: Fax Number: (520) 628-6745

IIa. Transporter Information

Transporter Name: MP Environmental Contact Name: Craig Miller

Transporter Address: 3045 South 51st Avenue

City: Phoenix County: Maricopa State: AZ Zip: 85043

Phone Number: Fax Number: State Transportation Number:

IIb. Billing Information

Bill To: GeoTrans, Inc. Contact Name: Jasenka Zbozinek

Billing Address: 4801 E Washington St, Suite 260 Email:

City: Phoenix State: AZ Zip: 85034 Phone: (602) 682-3320

III. Waste Stream Information

Name of Waste: Non-hazardous purged groundwater

Process Generating Waste:

Purged groundwater was generated during the well development and quarterly sampling in February through April 2010. In good faith we can state that based on historical investigations, the source of the contamination is not known. The chemicals of concern are PCE, TCE, and cyanide.

Physical State: ☐ SOLID ☐ SEMI-SOLID ☐ POWDER ☒ LIQUIDMethod of Shipment: ☒ BULK ☐ DRUM ☐ BAGGED ☐ OTHER:

Estimated Annual Volume: 5,000 Gallons

Frequency: ☒ ONE TIME ☐ ANNUALDisposal Consideration: ☐ LANDFILL ☒ SOLIDIFICATION ☐ BIOREMEDIATION**IV. Representative Sample Certification**☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?

☒ YES or ☐ NOSample Date: 4/26-4/30, 2010 Type of Sample: ☐ COMPOSITE SAMPLE ☒ GRAB SAMPLE

Sample ID Numbers: Please see Attached Sheet

**SPECIAL WASTE PROFILE (continued)**

Page 2 of 2

V. Physical Characteristics of Waste

Characteristic Components		Waste Profile #			
1. Liquid		% by Weight (range)			
2. Sediment		99.000			
3.		1.000			
4.					
5.					
Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
Clear	None	<input checked="" type="checkbox"/> Yes or <input type="checkbox"/> No	1.00	5-9	N/A °F
Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile					
Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste a reactive or heat generating waste?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does the waste contain sulfur or sulfur by-products?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste generated at a Federal Superfund Clean Up Site?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste from a TSD facility, TSD-like facility or waste consolidator?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither I nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Tina LePage

Arizona Department of Environmental Quality

Authorized Representative Name/Title (Type or Print)

Company Name

Authorized Representative Signature

Date

Sample ID Numbers:

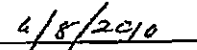
DMW-11-042610, MW-25A-0402610, MW-25B-0402710, MW-16A-0402710,
MW-13A-0402710, MW-23B-0402710, MW-17C-0402710, MW-17A-0402710,
MW-9A-0402710, MW-101A-0402710, MW-8C-0402810, MW-24B-0402810,
MW-21A-0402810, MW-21B-0402810, MW-21C-0402810, MW-12A-0402810,
MW-18A-0402810, MW-8B-0402810, MW-8A-0402810, MW-15A-0402910,
MW-103C-0402910, MW-102B1-0402910

I hereby certify that the samples listed above are representative of the waste in the original profile.

Tina Le Page

Arizona Department of Environmental Quality


Signature


Date

**SPECIAL WASTE PROFILE**

Page 1 of 2

Requested Disposal Facility: Copper Mountain LF AZ 4133

Saveable fill in form. Restricted printing until all required (yellow) fields are completed.

I. Generator Information

Generator Name: Arizona Department of Environmental Quality			
Generator Site Address: 20th & Factor WQARF Site, 655 East 20th Street			
City: Yuma	County: Yuma	State: Arizona	Zip: 85365
State ID/Reg No: N/A	State Approval/Waste Code: N/A (if applicable)		NAICS #: N/A
Generator Mailing Address (if different): ADEQ, 400 West Congress Street, Suite 433			
City: Tucson	County: Pima	State: Arizona	Zip: 85701
Generator Contact Name: Tina LePage		Email: lepage.tina@azdeq.gov	
Phone Number: (520) 628-6663	Ext:	Fax Number: (520) 628-6745	

IIa. Transporter Information

Transporter Name: MP Environmental		Contact Name: Craig Miller	
Transporter Address: 3045 South 51st Avenue			
City: Phoenix	County: Maricopa	State: AZ	Zip: 85043
Phone Number: 602 389-6233	Fax Number:	State Transportation Number:	

IIb. Billing Information

Bill To: GeoTrans, Inc.		Contact Name: Jasenka Zbozinek	
Billing Address: 4801 E Washington St, Suite 260		Email:	
City: Phoenix	State: AZ	Zip: 85034	Phone: (602) 682-3320

III. Waste Stream Information

Name of Waste: Non-hazardous soil cuttings, trash, and asphalt	
Process Generating Waste: Soil cuttings were generated during the installation of soil vapor and groundwater monitoring wells during February and March 2010. In good faith we can state that based on historical investigations, the source of the contamination is not known. The chemicals of concern are PCE, TCE, and cyanide.	
Physical State: <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> SEMI-SOLID <input type="checkbox"/> POWDER <input type="checkbox"/> LIQUID	
Method of Shipment: <input checked="" type="checkbox"/> BULK <input type="checkbox"/> DRUM <input type="checkbox"/> BAGGED <input type="checkbox"/> OTHER:	
Estimated Annual Volume: 40 Tons	
Frequency: <input checked="" type="checkbox"/> ONE TIME <input type="checkbox"/> ANNUAL	
Disposal Consideration: <input checked="" type="checkbox"/> LANDFILL <input type="checkbox"/> SOLIDIFICATION <input type="checkbox"/> BIOREMEDIATION	

IV. Representative Sample Certification☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	<input checked="" type="checkbox"/> YES or <input type="checkbox"/> NO
Sample Date: 3/12/2010	Type of Sample: <input checked="" type="checkbox"/> COMPOSITE SAMPLE <input type="checkbox"/> GRAB SAMPLE
Sample ID Numbers: IDW-SB-031210, IDW-NB-031210	

**SPECIAL WASTE PROFILE (continued)**

Page 2 of 2

Waste Profile #					
V. Physical Characteristics of Waste					
Characteristic Components			% by Weight (range)		
1. Soil			97.000		
2. Trash			2.000		
3. Asphalt			1.000		
4.					
5.					
Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
Brown	None	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No	100.00	9.9	<170 °F
Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile					
Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and it epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste a reactive or heat generating waste?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does the waste contain sulfur or sulfur by-products?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste generated at a Federal Superfund Clean Up Site?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste from a TSD facility, TSD-like facility or waste consolidator?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither I nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Tina LePage

Arizona Department of Environmental Quality

Authorized Representative Name/Title (Type or Print)

Company Name

03/26/2010

Authorized Representative Signature

Date

COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone	4. Waste Tracking Number 330462310
5. Generator's Name and Mailing Address ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY 1110 W. WASHINGTON ST., PHOENIX, AZ 85007			Generator's Site Address (if different than mailing address)		
6. Transporter 1 Company Name MPE			U.S. EPA ID Number		
7. Transporter 2 Company Name			U.S. EPA ID Number		
8. Designated Facility Name and Site Address COPPER MOUNTAIN LANDFILL AVE 34 E, COUNTY 12TH STREET NEWTON AZ 85356			U.S. EPA ID Number AER000002428		
9a. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type	11. Total Quantity	12. Unit Wt./Vol.
1. MONITORING WELL PURGE WATER			1 BOX BULK	5,000	Gal
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information Profile #4133-10-8446					
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.					
Generator's/Officer's Printed/Typed Name Tina Le Page / ADEQ			Signature <i>Tina Le Page</i>		Month Day Year 06/23/10
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:					
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Mike Shannessy			Signature <i>Mike Shannessy</i>		Month Day Year 06/23/10
Transporter 2 Printed/Typed Name			Signature		Month Day Year
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
17b. Alternate Facility (or Generator) U.S. EPA ID Number					
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator) Month Day Year					
18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 17a					
Printed/Typed Name Frank R. Rame			Signature <i>Frank R. Rame</i>		Month Day Year 6/23/10

5-NHM-C-SO-1158

-DESIGNATED FACILITY TO DESTINATION

TFDEQP000413

3503553

COPPER MOUNTAIN LANDFILL
36 E. & COUNTY 14TH ST
WELLTON, AZ 85356

000071
GEOTRANS INC.
4801 E WASHINGTON ST., STE 260
PHOENIX, AZ 85034

SITE 07	TICKET 123024	GRID
WEIGHMASTER SR00050 SHARON R		
DATE IN 23 June 2010		TIME IN 11:54 am
DATE OUT 23 June 2010		TIME OUT 1:44 pm
VEHICLE MF683		ROLL OFF
REFERENCE	ORIGIN	

00 Gross Weight 65,600.00 lb
Tare Weight 31,800.00 lb
Net Weight 33,800.00 lb 16.90 TN

Inbound - SCALE TICKET

16.90	TN	VY	SW-SPECIAL WASTE-LIQUID
1.00	LD	03	ENVIRONMENTAL FEE
1.00	LD	01	FUEL RECOVERY FEE

Contract: #4133108446
330462310



SIGNATURE

GET READY

TENDERED

CHANGE

CHECK NO.

AW-FO

COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Priorities	4. Waste Tracking Number
			1		20100623
5. Generator's Name and Mailing Address ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY 1110 N. WASHINGTON ST. PHOENIX, AZ 85007		Generator's Site Address (if different than mailing address)			
Generator's Phone: (520) 628-6663					
6. Transporter 1 Company Name MPE				U.S. EPA ID Number	
7. Transporter 2 Company Name				U.S. EPA ID Number	
8. Designated Facility Name and Site Address COPPER MOUNTAIN LANDFILL AVE 34 E. COUNTY 12TH ST NEWTON, AZ 85356				U.S. EPA ID Number	
Facility's Phone: (928) 785-3797				AZR000002428	
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.
1.	MONITORING WELL DRILL CUTTINGS/TRASH	2	Rec-off	40	tons
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information PROFILE # 4133-10-8351 Bin # 4597-4454					
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.					
Generator's/Officer's Printed/Typed Name Tina L. Page / ADER		Signature Tina L. Page		Month Day Year 06 23 10	
15. International Shipments <input checked="" type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:					
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Joy Lockmeyer (MPE)		Signature Joy Lockmeyer		Month Day Year 06 23 10	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
17b. Alternate Facility (or Generator) U.S. EPA ID Number					
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator) Month Day Year					
18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 11a					
Printed/Typed Name Sharon Birk		Signature Sharon Birk		Month Day Year 06 23 10	

3503554

COPPER MOUNTAIN LANDFILL
36 E A COUNTY 14TH ST
WELLTON, AZ 85356

000071
BEDTRANS INC.
4801 E WASHINGTON ST., STE 260
PHOENIX, AZ 85034

SITE 07	TICKET 123025	GRID
WEIGHMASTER SR00050 SHARON R		
DATE IN 23 June 2010		TIME IN 11:50 am
DATE OUT JUNE 2010		TIME OUT pm
VEHICLE MF 613		ROLL OFF
REFERENCE	ORIGIN	

00 Gross Weight 72,980.00 lb
Tare Weight 40,820.00 lb
Net Weight 32,160.00 lb 16.08 TN

CALIFORNIA
Inbound - SCALE TICKET

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
16.08	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				

Contract: #4133108351
20100623



SIGNATURE

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

AW-1

TFDEQP000416

APPENDIX D

**Soil Boring Log for MW-25B,
Construction Details for MW-25A and MW-25B, and
Well Drillers Report and Well Log for MW-25A and MW-25B**



4801 E Washington St
Suite 260
Phoenix, AZ 85034
(602) 682-3320

Project Name: WQARF 20th & Factor Ave.

Well ID: MW-25B

Project Number: 117-1303.036.02

Drill Method: Mud Rotary

Client: ADEQ

Angle From Vertical: NA

Location: Yuma, AZ

Sample Method: 18" Split Spoon

Drill Date: 3/8-12/2010

Logged By: Tyson Glock

Reviewed By: Jasenka Zbozinek

Driller: Yellow Jacket

Depth (ft.)	USCS Symbol	Lithology	Description and Comments	Well Construction
1.0			Straight drill to 60' bgs (no samples taken)	
2.0				
3.0				
4.0				
5.0				
6.0				
7.0				
8.0				
9.0				
10.0				
11.0				
12.0				
13.0				
14.0				
15.0				
16.0				
17.0				
18.0				
19.0				
20.0				



4801 E Washington St
Suite 260
Phoenix, AZ 85034
(602) 682-3320

Project Name: WQARF 20th & Factor Ave.

Well ID: MW-25B

Project Number: 117-1303.036.02

Drill Method: Mud Rotary

Client: ADEQ

Angle From Vertical: NA

Location: Yuma, AZ

Sample Method: 18" Split Spoon

Drill Date: 3/8-12/2010

Logged By: Tyson Glock

Reviewed By: Jasenka Zbozinek

Driller: Yellow Jacket

Depth (ft.)	USCS Symbol	Lithology	Description and Comments	Well Construction
21.0			Straight drill to 60' bgs (no samples taken)	
22.0				
23.0				
24.0				
25.0				
26.0				
27.0				
28.0				
29.0				
30.0				
31.0				
32.0				
33.0				
34.0				
35.0				
36.0				
37.0				
38.0				
39.0				
40.0				



4801 E Washington St
Suite 260
Phoenix, AZ 85034
(602) 682-3320

Project Name: WQARF 20th & Factor Ave.

Well ID: MW-25B

Project Number: 117-1303.036.02

Drill Method: Mud Rotary

Client: ADEQ

Angle From Vertical: NA

Location: Yuma, AZ

Sample Method: 18" Split Spoon

Drill Date: 3/8-12/2010

Logged By: Tyson Glock

Reviewed By: Jasenka Zbozinek

Driller: Yellow Jacket

Depth (ft.)	USCS Symbol	Lithology	Description and Comments	Well Construction
41.0			Straight drill to 60' bgs (no samples taken)	
42.0				
43.0				
44.0				
45.0				
46.0				
47.0				
48.0				
49.0				
50.0				
51.0				
52.0				
53.0				
54.0				
55.0				
56.0				
57.0				
58.0				
59.0				
60.0				



4801 E Washington St
Suite 260
Phoenix, AZ 85034
(602) 682-3320

Project Name: WQARF 20th & Factor Ave.

Well ID: MW-25B

Project Number: 117-1303.036.02

Drill Method: Mud Rotary

Client: ADEQ

Angle From Vertical: NA

Location: Yuma, AZ

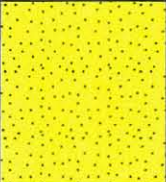
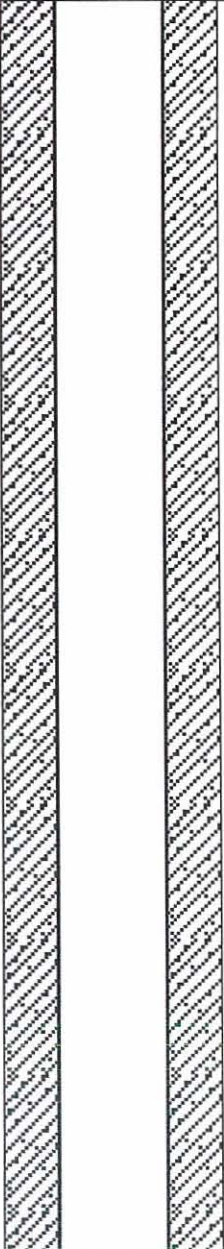

Sample Method: 18" Split Spoon

Drill Date: 3/8-12/2010

Logged By: Tyson Glock

Reviewed By: Jasenka Zbozinek

Driller: Yellow Jacket

Depth (ft.)	USCS Symbol	Lithology	Description and Comments	Well Construction
61.0	SW		Well Graded Sand fine to medium grained sand, weak cementation	
62.0				
63.0			Recovery complications; straight drill to 80' bgs.	
64.0				
65.0				
66.0				
67.0				
68.0				
69.0				
70.0				
71.0				
72.0				
73.0				
74.0				
75.0				
76.0				
77.0				
78.0				
79.0				
80.0				



4801 E Washington St
Suite 260
Phoenix, AZ 85034
(602) 682-3320

Project Name: WQARF 20th & Factor Ave.

Well ID: MW-25B

Project Number: 117-1303.036.02

Drill Method: Mud Rotary

Client: ADEQ

Angle From Vertical: NA

Location: Yuma, AZ

Sample Method: 18" Split Spoon

Drill Date: 3/8-12/2010

Logged By: Tyson Glock

Reviewed By: Jasenka Zbozinek

Driller: Yellow Jacket

Depth (ft.)	USCS Symbol	Lithology	Description and Comments	Well Construction
81.0	SP		Poorly Graded Sand 100% medium grained sand, 7.5YR 7/4 pink, moist, weak cementation	
82.0				
83.0				
84.0				
85.0				
86.0	SP		Poorly Graded Sand 100% fine grained sand, 7.5YR 6/3 light brown, moist, weak cementation	
87.0				
88.0				
89.0				
90.0	SW		Well Graded Sand 50% medium grained sand, 30% fine grained sand, 20% coarse grained sand, 7.5YR 6/4 light brown, moist, weak cementation	
91.0				
92.0				
93.0				
94.0				
95.0				
96.0				
97.0				
98.0				
99.0				
100.0				



4801 E Washington St
Suite 260
Phoenix, AZ 85034
(602) 682-3320

Project Name: WQARF 20th & Factor Ave.

Well ID: MW-25B

Project Number: 117-1303.036.02

Drill Method: Mud Rotary

Client: ADEQ

Angle From Vertical: NA

Location: Yuma, AZ

Sample Method: 18" Split Spoon

Drill Date: 3/8-12/2010

Logged By: Tyson Glock

Reviewed By: Jasenka Zbozinek

Driller: Yellow Jacket

Depth (ft.)	USCS Symbol	Lithology	Description and Comments	Well Construction
101.0	SW		Well Graded Sand 70% medium grained sand, 30% fine grained sand, 7.5YR 7/4 pink, moist, weak cementation	
102.0				
103.0				
104.0				
105.0				
106.0	SW		Well Graded Sand 70% medium grained sand, 30% fine grained sand, 7.5YR 6/2 pinkish grey, moist, weak cementation	
107.0				
108.0				
109.0				
110.0				
111.0	SW		Well Graded Sand 70% fine grained sand, 30% medium grained sand, 7.5YR 6/2 pinkish grey, moist, weak cementation	
112.0				
113.0				
114.0				
115.0				
116.0	SW		Well Graded Sand 90% medium grained sand, 10% fine grained sand, 7.5YR 6/3 light brown, moist, weak cementation	
117.0				
118.0				
119.0				
120.0				



4801 E Washington St
Suite 260
Phoenix, AZ 85034
(602) 682-3320

Project Name: WQARF 20th & Factor Ave.

Well ID: MW-25B

Project Number: 117-1303.036.02

Drill Method: Mud Rotary

Client: ADEQ

Angle From Vertical: NA

Location: Yuma, AZ

Sample Method: 18" Split Spoon

Drill Date: 3/8-12/2010

Logged By: Tyson Glock

Reviewed By: Jasenka Zbozinek

Driller: Yellow Jacket

Depth (ft.)	USCS Symbol	Lithology	Description and Comments	Well Construction
121.0				
122.0				
123.0				
124.0				
125.0				
126.0				
127.0				
128.0				
129.0				
130.0	CL		Clay with Trace Sand 95% clay, 5% fine grained sand, 7.5YR 7/3 pink, moist, moderate cementation	
131.0	CL		Gravelly Clay with Trace Sand 65% clay, 30% gravel, 5% fine grained sand, 7.5YR 7/3 pink, moist, weak cementation	
132.0	CL		Clay 100% clay, 7.5YR 6/3 light brown, moist, moderate cementation	
133.0	GC		Clayey Gravel with Trace Sand 60% gravel, 35% clay, 5% fine grained sand, 7.5YR 6/3 light brown, moist, weak cementation	
134.0	CL		Sandy Clay 80% clay, 20% fine grained sand, 7.5YR 6/3 light brown, moist, weak cementation	
135.0	SW		Well Graded Sand 50% fine grained sand, 50% medium grained sand, 7.5 YR 7/3 pink, moist, weak cementation	
136.0				
137.0				
138.0				
139.0				
140.0				

Bentonite seal



4801 E Washington St
Suite 260
Phoenix, AZ 85034
(602) 682-3320

Project Name: WQARF 20th & Factor Ave.

Well ID: MW-25B

Project Number: 117-1303.036.02

Drill Method: Mud Rotary

Client: ADEQ

Angle From Vertical: NA

Location: Yuma, AZ

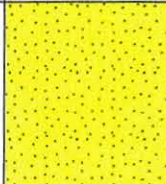
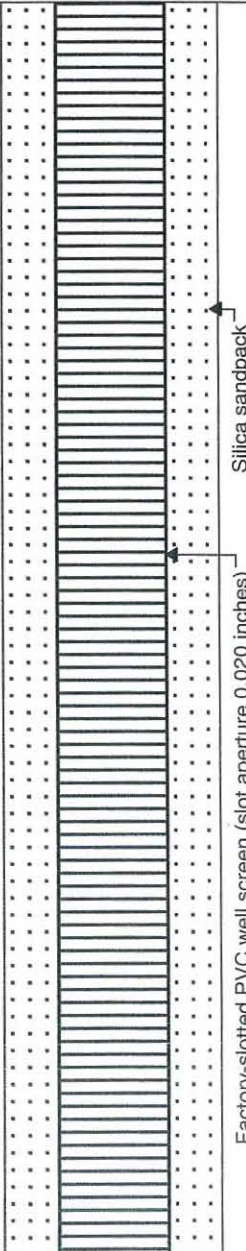
Sample Method: 18" Split Spoon

Drill Date: 3/8-12/2010

Logged By: Tyson Glock

Reviewed By: Jasenka Zbozinek

Driller: Yellow Jacket

Depth (ft.)	USCS Symbol	Lithology	Description and Comments	Well Construction
141.0	SW		Well Graded Sand with Gravel 40% fine grained sand, 20% medium grained sand, 20% coarse grained sand, 15% gravel, 7.5YR 6/2 pinkish grey, moist, weak cementation	
142.0				
143.0			Recovery complications; straight drill to 163' bgs.	
144.0				
145.0				
146.0				
147.0				
148.0				
149.0				
150.0				
151.0				
152.0				
153.0				
154.0				
155.0				
156.0				
157.0				
158.0				
159.0				
160.0				



4801 E Washington St
Suite 260
Phoenix, AZ 85034
(602) 682-3320

Project Name: WQARF 20th & Factor Ave.

Well ID: MW-25B

Project Number: 117-1303.036.02

Drill Method: Mud Rotary

Client: ADEQ

Angle From Vertical: NA

Location: Yuma, AZ

Sample Method: 18" Split Spoon

Drill Date: 3/8-12/2010

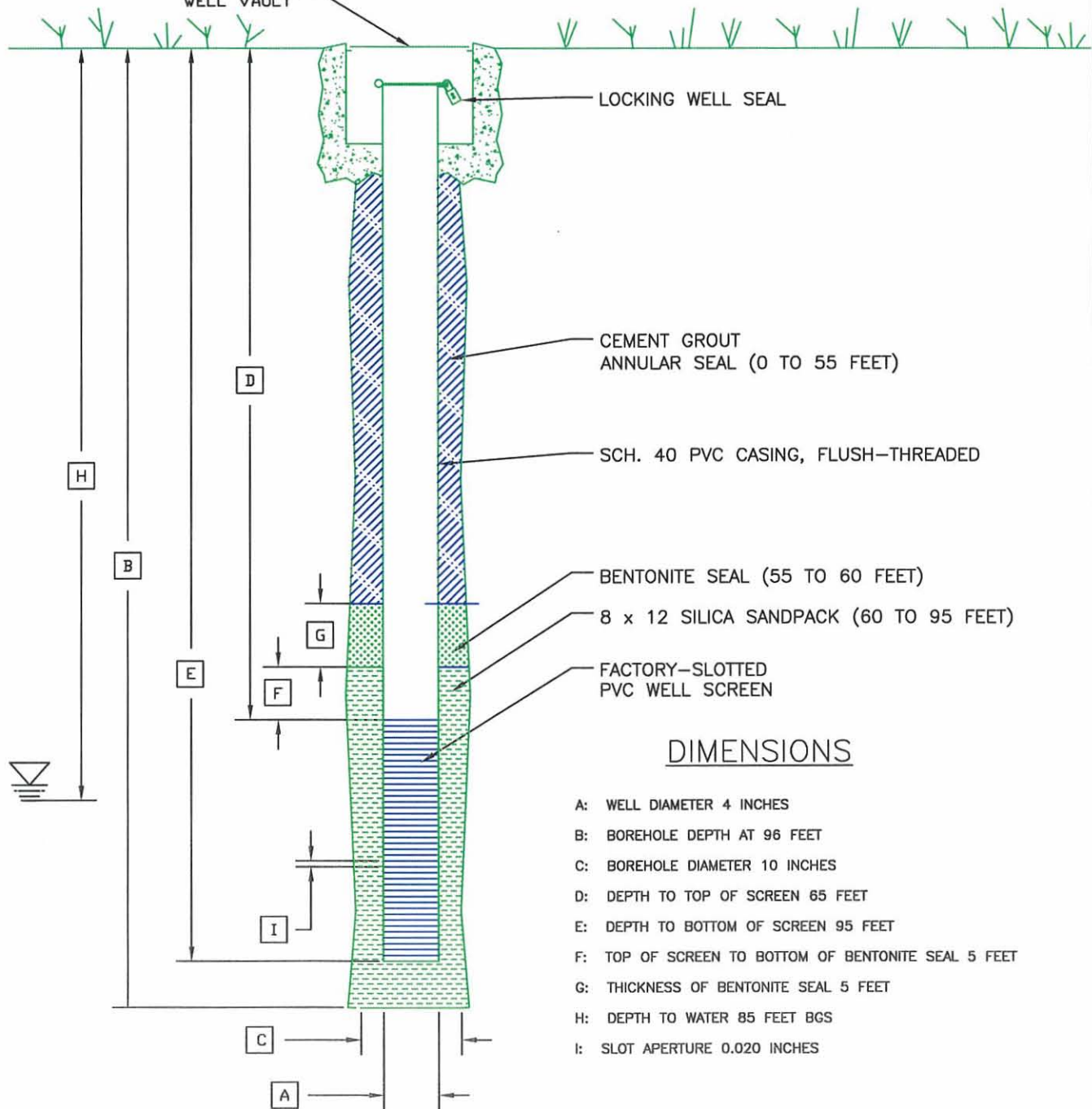
Logged By: Tyson Glock

Reviewed By: Jasenka Zbozinek

Driller: Yellow Jacket

Depth (ft.)	USCS Symbol	Lithology	Description and Comments	Well Construction
161.0				
162.0				
163.0			Recovery complications; suspected gravelly clay at 163' bgs.	
164.0				
165.0	SP		Poorly Graded Sand 100% fine sand, 7.5YR 6/4 light brown, moist, weak cementation	
166.0				
167.0			Recovery complications; straight drill to 178' bgs.	
168.0				
169.0				
170.0				
171.0				
172.0				
173.0				
174.0				
175.0				
176.0				
177.0				
178.0			Total borehole depth: 178' bgs	
179.0				
180.0				

Traffic Rated 12" TAMPER-RESISTANT
WELL VAULT



* NOT TO SCALE

TITLE:

MW-25A GROUNDWATER MONITORING
WELL CONSTRUCTION DIAGRAM

LOCATION:

20TH AND FACTOR WQARF SITE, YUMA, ARIZONA



GeoTrans, Inc.
A TETRA TECH COMPANY

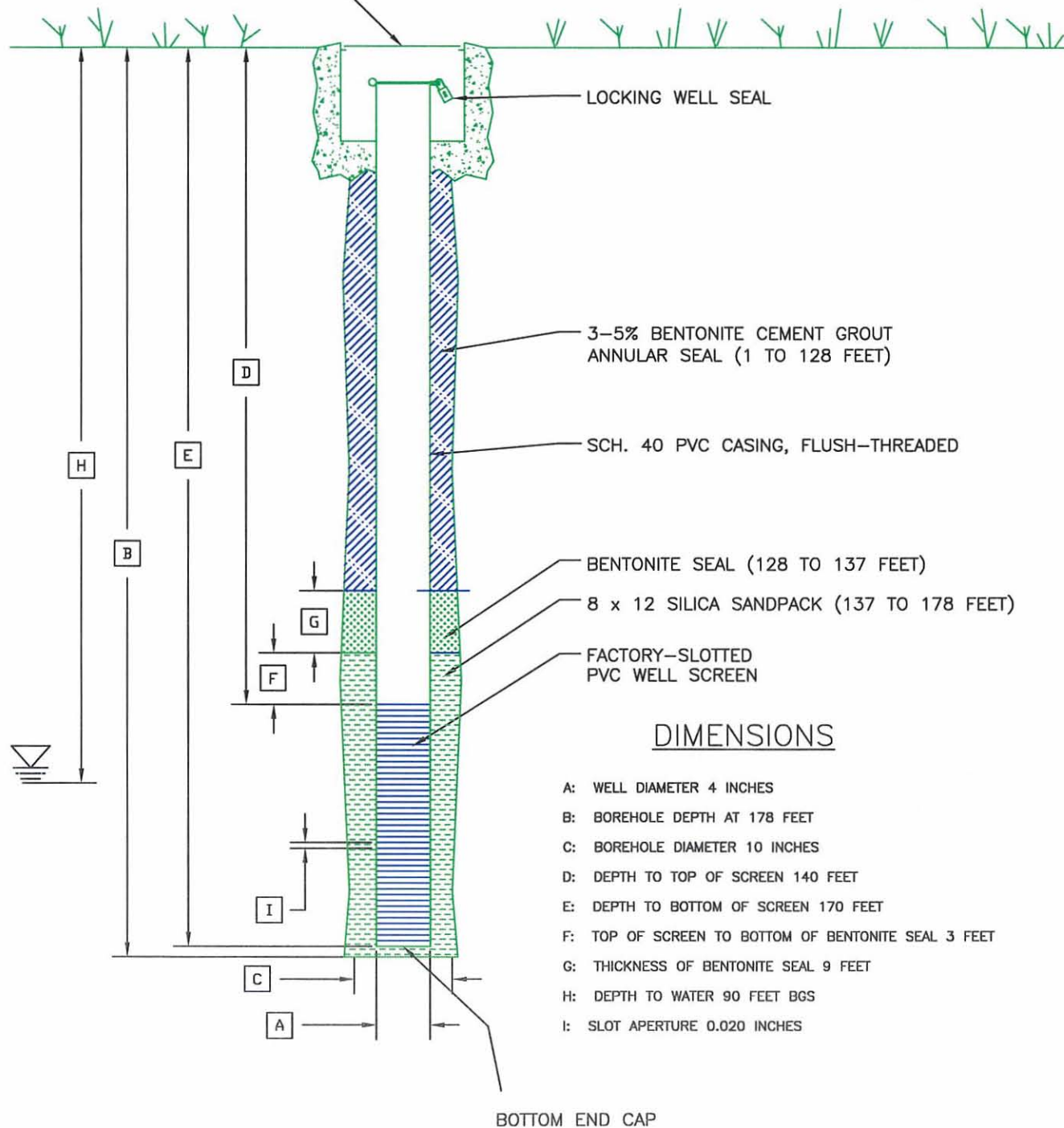
CHECKED	JZ/MO
DRAFTED	BB
PROJECT	1303.036
DATE	4/2/10

FIGURE

D-1

TFDEQP000427

Traffic Rated 12" TAMPER-RESISTANT
WELL VAULT



DIMENSIONS

- A: WELL DIAMETER 4 INCHES
- B: BOREHOLE DEPTH AT 178 FEET
- C: BOREHOLE DIAMETER 10 INCHES
- D: DEPTH TO TOP OF SCREEN 140 FEET
- E: DEPTH TO BOTTOM OF SCREEN 170 FEET
- F: TOP OF SCREEN TO BOTTOM OF BENTONITE SEAL 3 FEET
- G: THICKNESS OF BENTONITE SEAL 9 FEET
- H: DEPTH TO WATER 90 FEET BGS
- I: SLOT APERTURE 0.020 INCHES

* NOT TO SCALE

TITLE:

MW-25B GROUNDWATER MONITORING
WELL CONSTRUCTION DIAGRAM

LOCATION:

20TH AND FACTOR WQARF SITE, YUMA, ARIZONA



GeoTrans, Inc.
A TETRA TECH COMPANY

CHECKED	JZ/MO
DRAFTED	BB
PROJECT	1303.036
DATE	4/2/10

FIGURE

D-2

TFDEQP000428



Arizona Department of Water Resources
Information Management Unit
P.O. Box 33589 • Phoenix, Arizona 85067-3589
(602) 771-8627 • (800) 352-8488
www.water.az.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL

PLEASE PRINT CLEARLY USING BLACK OR BLUE INK

COPY

FILE NUMBER
C(8-23)33 AAD
WELL REGISTRATION NUMBER
55 - 911859
PERMIT NUMBER (IF ISSUED)

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:	NAME	DWR LICENSE NUMBER
	YELLOW JACKET DRILLING SERVICES L L C	78
	ADDRESS	TELEPHONE NUMBER
	P.O. BOX 801	602-453-3252
	CITY / STATE / ZIP	FAX
	GILBERT, AZ, 85299-0801	602453 3258

SECTION 1. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL
Arizona Department of Environmental Quality

MAILING ADDRESS
400 West Congress, Suite 433

CITY / STATE / ZIP
Tucson, AZ, 85701

CONTACT PERSON NAME AND TITLE

Tina LePage Project Manager

TELEPHONE NUMBER
520 628-6733

FAX

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.)

MW-25A

Location of Well

WELL LOCATION ADDRESS (IF ANY)

Yuma Row

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
8S	23W	33	NE 1/4	NE 1/4	SE 1/4
LATITUDE			LONGITUDE		
32	41	49.3°N	114	37	05.4°W

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)

USGS Quad Map

Conventional Survey

☒ GPS: Hand-Held

*GPS: Survey-Grade

LAND SURFACE ELEVATION AT WELL

183'

Feet Above Sea Level

METHOD OF ELEVATION (CHECK ONE)

USGS Quad Map

Conventional Survey

☒ GPS: Hand-Held

*GPS: Survey-Grade

*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE)

☒ NAD-83

Other (please specify)

COUNTY

Yuma

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK

MAP

PARCEL

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE

- Air Rotary
- ☒ Bored or Augered
- Cable Tool
- Dual Rotary
- Mud Rotary
- Reverse Circulation
- Driven
- Jetted
- Air Percussion / Odex Tubing
- Other (please specify)

Method of Well Development

CHECK ONE

- Airlift
- ☒ Bail
- ☒ Surge Block
- Surge Pump
- ☒ Other (please specify) Pump

Condition of Well

CHECK ONE

- ☒ Capped
- Pump Installed

Method of Sealing at Reduction Points

CHECK ONE

- None
- Packed
- Swedged
- Welded
- Other (please specify) No reduction points

Construction Dates

DATE WELL CONSTRUCTION STARTED

3-2-10

DATE WELL CONSTRUCTION COMPLETED

3-4-10

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY

[Signature]

DATE

4.5.10

WELL REGISTRATION NUMBER
55 - 911859

Depth

DEPTH OF BORING

100

Feet Below Land Surface

DEPTH OF COMPLETED WELL

95

Feet Below Land Surface

STATIC WATER LEVEL

78

Feet Below Land Surface

DATE MEASURED _____

DATE MEASURED
3-3-10

TIME MEASURED

IF FLOWING WELL. METHOD OF FLOW REGULATION

Valve

Other:

[illegible]

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 911859

SECTION 5. GEOLOGIC LOG OF WELL

[illegible]

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 911859

SECTION 6. WELL SITE PLAN

NAME OF WELL OWNER

COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

Arizona Department of Environmental Quality

BOOK

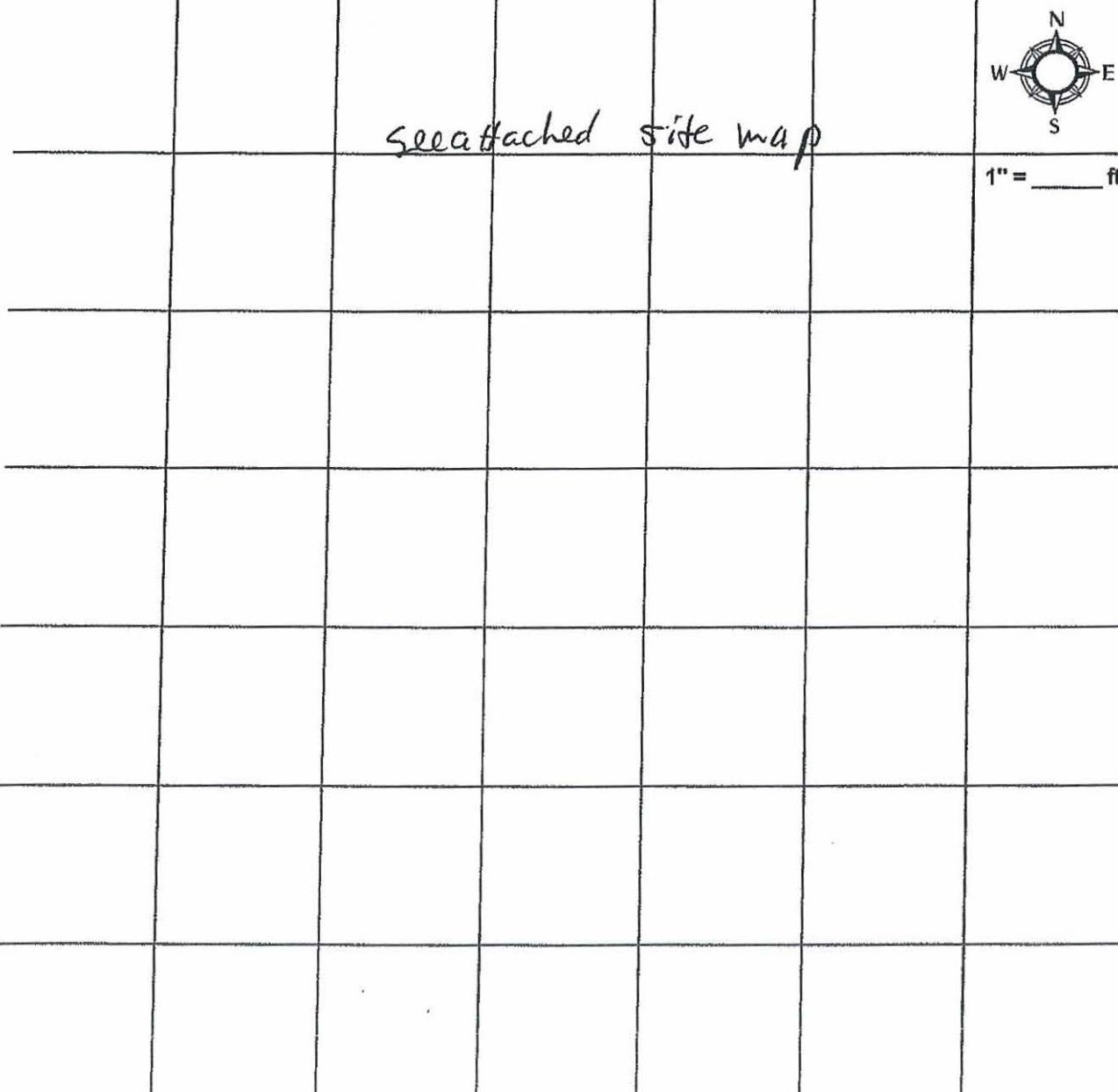
MAP

PARCEL

- ❖ Please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- ❖ Please indicate the distance between the well location and any septic tank system or sewer system.

See attached site map

1" = _____ ft



OWNER ADDRESS LABEL PAGE

Arizona Department of Environmental Quality
400 West Congress, Suite 433
Tucson, AZ 85701

ARIZONA DEPARTMENT OF WATER RESOURCES

3550 N. Central Avenue Suite 200, Phoenix, Arizona 85012

Telephone (602) 771-8500

Fax (602) 771-8691

Tuesday, March 23, 2010

Arizona Department of Environmental Quality
400 West Congress, Suite 433
Tucson, AZ 85701



Janice K. Brewer
Governor

Herbert R. Guenther
Director

Registration No. 55- 911859
File No. C(8-23)33 AAD

Dear Applicant:

Enclosed is a copy of the Notice of Intent to Drill a Monitor/Piezometer/Environmental Well ("NOI") which you recently filed with this Department pursuant to A.R.S. § 45-596. This is to inform you that the Department has approved the NOI and has mailed (or otherwise provided) a drilling card authorizing the drilling of the well to the well driller identified in the NOI. The driller may not begin drilling until he has received the drilling card which he must keep in his possession at the well site during drilling. Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, you must file a new NOI before proceeding with further drilling.

If it is necessary to change the location of the proposed well, you may not proceed with drilling until you file a new NOI with the Department and the Department issues an amended drilling card to the driller. If you change drillers, you must notify the Department of the new driller's identity. A new driller may not begin drilling until he receives a new drilling card from the Department. If in the course of drilling the well, it is determined that the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report filed as required by A.A.C. R12-15-816(F).

A.R.S. § 45-600 requires the driller to file a complete and accurate Well Drillers Report and Well Log (DWR Form 55-55) with the Department within 30 days after completion of drilling. That form was mailed to your driller with the drilling card.

Please be advised that A.R.S. § 45-593(C) requires the person to whom a well is registered to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information or a request to change well driller must be filed on a Request to Change Well Information form (DWR form 55-71A) that may be downloaded from the ADWR Internet website at

http://www.azwater.gov/dwr/Content/Find_by_Category/Permits_Forms_Applications/default.htm.

ARIZONA DEPARTMENT OF WATER RESOURCES
3550 N. Central Avenue Suite 200
Phoenix, Arizona 85012

DRILLING CARD

SPECIAL REQUIREMENTS APPLY (WQARF/SUPERFUND) VARIANCE GRANTED

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: 55-911859 25A

AUTHORIZED DRILLER: YELLOW JACKET DRILLING SERVICES L L C

LICENSE NO: 78

NOTICE OF INTENT TO DRILL A MONITOR WELL HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: Arizona Department of Environmental Quality

ADDRESS: 400 West Congress, Suite 433, Tucson, AZ, 85701

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SE 1/4 of the NE 1/4 of the NE 1/4 Section 33 Township 08 S Range 23 W

NO. OF WELLS IN THIS PROJECT: 1

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF 3/22/2011

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING



This drilling or abandonment authority was granted based upon the certifications made by the above-named Driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the address above to correct.

Variance(s) Granted To Driller:

- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

- ☒ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.
- ☒ If the landowner and the well owner are not the same, by checking this box, I certify that I have obtained written approval from the landowner in order to conduct this drilling or abandonment project. A copy of the written approval shall be submitted to ADWR with the Well Driller Report and Well Log or Well Abandonment Completion Report within 30 days of completion of drilling or abandonment.
- ☒ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.
- ☒ I understand that this well site is located within the boundaries of a contamination area and that special construction or abandonment requirements shall be complied with, and by checking this box, I certify that I have read the applicable special requirements, and that I shall comply with those standards.
- ☒ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.



By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.



By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.



Arizona Department of Water Resources
Information Management Unit
P.O. Box 33589 • Phoenix, Arizona 85067-3589
(602) 771-8627 • (800) 352-8488
www.water.az.gov

Well Driller Report and Well Log

COPY

FILE NUMBER
C(8-23)33 AAD
WELL REGISTRATION NUMBER
55 - 911860
PERMIT NUMBER (IF ISSUED)

THIS REPORT MUST BE FILED WITHIN **30 DAYS** OF COMPLETING THE WELL.

PLEASE PRINT CLEARLY USING BLACK OR BLUE INK

SECTION 1: DRILLING AUTHORIZATION						
Drilling Firm						
Mail To:	NAME YELLOW JACKET DRILLING SERVICES L L C			DWR LICENSE NUMBER 78		
	ADDRESS P.O. BOX 801			TELEPHONE NUMBER 602-453-3252		
	CITY / STATE / ZIP GILBERT, AZ, 85299-0801			FAX 602 453 3258		
SECTION 1: REGISTRY INFORMATION						
Well Owner				Location of Well		
FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL Arizona Department of Environmental Quality				WELL LOCATION ADDRESS (IF ANY) Yuma Row		
MAILING ADDRESS 400 W Congress				TOWNSHIP (N/S) 8S	RANGE (E/W) 23 W	SECTION 33
CITY / STATE / ZIP Tucson, AZ, 85701				LATITUDE 114	LONGITUDE 37	160 ACRE NE 1/4
CONTACT PERSON NAME AND TITLE Tina Le Page Project Manager				METHOD OF LATITUDE/LONGITUDE (CHECK ONE) <input checked="" type="checkbox"/> GPS: Hand-Held <input type="checkbox"/> USGS Quad Map <input type="checkbox"/> Conventional Survey <input type="checkbox"/> GPS: Survey-Grade		
TELEPHONE NUMBER 520 628-6733				LAND SURFACE ELEVATION AT WELL 96' Feet Above Sea Level		
WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.) MW-25B				METHOD OF ELEVATION (CHECK ONE) <input checked="" type="checkbox"/> GPS: Hand-Held <input type="checkbox"/> USGS Quad Map <input type="checkbox"/> Conventional Survey <input type="checkbox"/> GPS: Survey-Grade		
*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE) <input checked="" type="checkbox"/> NAD-83 <input type="checkbox"/> Other (please specify)						
COUNTY Yuma				ASSESSOR'S PARCEL ID NUMBER (MOST RECENT) BOOK MAP PARCEL		
SECTION 3: WELL CONSTRUCTION DETAILS						
Drilling Method		Method of Well Development		Method of Sealing at Reduction Points		
CHECK ONE Air Rotary Bored or Augered Cable Tool Dual Rotary <input checked="" type="checkbox"/> Mud Rotary Reverse Circulation Driven Jetted Air Percussion / Odex Tubing Other (please specify)		CHECK ONE Airlift <input checked="" type="checkbox"/> Bail <input checked="" type="checkbox"/> Surge Block Surge Pump <input checked="" type="checkbox"/> Other (please specify) pump		CHECK ONE None Packed Swedged Welded <input checked="" type="checkbox"/> Other (please specify) No reduction points		
		Condition of Well		Construction Dates		
		CHECK ONE <input checked="" type="checkbox"/> Capped Pump Installed		DATE WELL CONSTRUCTION STARTED 3-8-10		
				DATE WELL CONSTRUCTION COMPLETED 3-12-10		

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY

[Signature]

DATE

4.5.10

WELL REGISTRATION NUMBER
55 - 911860

Depth

DEPTH OF BORING

178

Feet Below Land Surface

DEPTH OF COMPLETED WELL

170

Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL

90

Feet Below Land Surface

DATE MEASURED

3.11.10

TIME MEASURED

IF FLOWING WELL, METHOD OF FLOW REGULATION

Valve

Other:

[illegible]

Installed Annular Material

[illegible]

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 911860

SECTION 5. GEOLOGIC LOG OF WELL

[illegible]

WELL REGISTRATION NUMBER
55 - 911860

NAME OF WELL OWNER

COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK

MAP

PARCEL

❖ Please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.

❖ Please indicate the distance between the well location and any septic tank system or sewer system.



1" = _____ ft

see attached site map

OWNER ADDRESS LABEL PAGE

Arizona Department of Environmental Quality
400 W Congress
Tucson, AZ 85701

ARIZONA DEPARTMENT OF WATER RESOURCES

3550 N. Central Avenue Suite 200, Phoenix, Arizona 85012

Telephone (602) 771-8500

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Tuesday, March 23, 2010

Arizona Department of Environmental Quality
400 W Congress
Tucson, AZ 85701



Janice K. Brewer
Governor

Herbert R. Guenther
Director

Registration No. 55- 911860
File No. C(8-23)33 AAD

Dear Applicant:

Enclosed is a copy of the Notice of Intent to Drill a Monitor/Piezometer/Environmental Well ("NOI") which you recently filed with this Department pursuant to A.R.S. § 45-596. This is to inform you that the Department has approved the NOI and has mailed (or otherwise provided) a drilling card authorizing the drilling of the well to the well driller identified in the NOI. The driller may not begin drilling until he has received the drilling card which he must keep in his possession at the well site during drilling. Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, you must file a new NOI before proceeding with further drilling.

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http://www.azwater.gov/dwr/Content/Find_by_Category/Permits_Forms_Applications/default.htm.

ARIZONA DEPARTMENT OF WATER RESOURCES
3550 N. Central Avenue Suite 200
Phoenix, Arizona 85012

DRILLING CARD
SPECIAL REQUIREMENTS APPLY (WQARF/SUPERFUND) VARIANCE GRANTED

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: 55-911860 253

AUTHORIZED DRILLER: YELLOW JACKET DRILLING SERVICES L L C

LICENSE NO: 78

NOTICE OF INTENT TO DRILL A MONITOR WELL HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: Arizona Department of Environmental Quality

ADDRESS: 400 W Congress, Tucson, AZ, 85701

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SE 1/4 of the NE 1/4 of the NE 1/4 Section 33 Township 08 S Range 23 W

NO. OF WELLS IN THIS PROJECT: 1

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF 3/22/2011

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30
DAYS OF COMPLETION OF DRILLING



This drilling or abandonment authority was granted based upon the certifications made by the above-named Driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the address above to correct.

Variance(s) Granted To Driller:

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Certification(s) Made By Driller:

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- ☒ If the landowner and the well owner are not the same, by checking this box, I certify that I have obtained written approval from the landowner in order to conduct this drilling or abandonment project. A copy of the written approval shall be submitted to ADWR with the Well Driller Report and Well Log or Well Abandonment Completion Report within 30 days of completion of drilling or abandonment.
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- ☒ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.



By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.



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ARIZONA DEPARTMENT OF WATER RESOURCES

Electronic Filing - NOI Report

3550 N. Central Avenue Suite 200
Phoenix, Arizona 85012

NOI Type: Notice of Intent to Drill, Deepen, Modify a Monitor/Piezometer/Environmental Well

Well Type: MONITOR

Date Received at ADWR Website: 3/23/2010 2:25:06 PM

Fee Paid: \$150.00

Order Number: VSGE4ECE95BB

Well Registration Number: 55 - 911860

Number of Wells/Holes: 1

Drilling Authority Expires On: 3/22/2011

Driller's ADWR License Number: 78

Authorized Driller: YELLOW JACKET DRILLING SERVICES L L C

ROC License Number Entered By Driller: 78

Qualifying Party License Categories: A-4

Well Owner Name: Arizona Department of Environmental Quality

Well Owner Address: 400 W Congress

Well Owner City, State - Zip: Tucson, AZ - 85701

Well Owner Phone: 520 628-6733

Book:

Map:

Parcel:

Is the Land Owner the same as the Well Owner?: No

Land Owner Name: City of Yuma

Land Owner Address: One City Plaza

Land Owner City, State - Zip: Yuma, AZ - 85701

Land Owner Phone: 928 373-5000

Well Location: SE 1/4 of the NE 1/4 of the NE 1/4 Section 33 Township 8 S Range 23 W

AMA: NOT WITHIN ANY AMA OR INA

County: YUMA

Contamination Site: WITHIN 1 MILE OF A WQARF SITE

Primary Water Use: MONITORING

Secondary Water Use(s): N/A

Is any portion of the land, on which the well is to be located, within 100 feet of a designated municipal provider's operating water distribution system as shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR. N/A

Proximity to a designated municipal provider's operating water distribution system exemption type:

N/A

Will you be installing a dedicated pump?: N/A

Will the installed pump have a pumping capacity of greater than 35 GPM, or will the well will be used to withdraw greater than 10 Acre Feet per year?: N/A

Is this NOI an application to replace, deepen, or modify an existing well? No

Variance(s) Granted To Driller:

- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

- ☒ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.
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- ☒ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.
- ☒ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.
- ☒ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

APPENDIX E

Well Development Details

WELL SAMPLING / DEVELOPMENT RECORD



Project Name/Client _____

Well Number _____

MW-25A

Date 3/12/10

Project Number _____

Sampler(s) _____

Elevation of Measuring Point (MP) _____ ft. (a)

Elevation of Ground Surface _____ ft. (b)

Well Depth (below ground surface) 96.5 TOC ft. (c)

Casing Inside Diameter 4" in. (d)

CALCULATION OF CASING VOLUME

Depth of Water Below MP 83.5 ft. (e)

Water Level Elevation (a-e) _____ ft. (f)

Step 1: Height of Water in Well, $H = f - (b-c) =$ 13 ft.

Step 2: Cross-sectional Area of Casing, $A = \pi \times d^2 / 576 =$ 0.0872 ft²

Step 3: Volume of Water in Casing, $V = A \times H \times 7.48 =$ 8.48 gal

Sampling/Development System (check one) Dedicated ☐ Non-dedicated ☒

Purging Apparatus: Type: Surge/bail and pump

Sampling Apparatus: Type: _____

Cleaning Methods _____

FIELD OBSERVATIONS

Weather Conditions Sunny 60's

Well Head Conditions Good New

Comments _____

Project Name/Client _____

Well Number MW-25ADate 3/12/10

bailing well FIELD MEASUREMENTS								
Time	Pump Rate (gpm)	Cumulative Vol. Removed (gal)	Temp (°C)	pH	Spec. Cond. (umhos/cm at 25° C)	NTU / TDS / ORP Particulates/Odor/Clarity/Color		
1214	—	~50	24.67	6.23	5.57	532	3.51	285
1307	5gpm	165	31.47	7.14	6.47	298	4.04	261
1313	5gpm	195	31.99	7.25	6.48	712	4.08	262
1320	5gpm	230	32.36	7.21	6.57	276	4.14	266
1329	5gpm	275	32.64	7.22	6.35	1145	4.00	265
1339	5gpm	325	32.25	7.22	6.61	20618	4.16	269
1348	5gpm	370	32.52	7.22	6.70	2641	4.22	280
1358	5gpm	420	32.80	7.20	6.60	19.2	4.16	278
1407	5gpm	455	32.77	7.26	6.79	13.5	4.28	277

Total Vol. Purged 460 (gal) Casing Vol. Purged 54.25Final Water Level After Purging 81.5 ft. Below MP; Time 1429Fate of Purged Water banker tank
105 gal bailed pump rate 5gpm start time 1257

SAMPLE INVENTORY

Label	Time	Number of Bottles	Analysis	F	P	Remarks

F = Filtered (Y,N) P = Preservative (Type)

Sampler(s) _____

Signatures(s) _____

WELL SAMPLING / DEVELOPMENT RECORD



Project Name/Client _____

Well Number _____

MW-25B

Date 3/12/10

Project Number _____ Sampler(s) _____

Elevation of Measuring Point (MP) _____ ft. (a)

Elevation of Ground Surface _____ ft. (b)

Well Depth (below ground surface) 169' 10" ft. (c)

Casing Inside Diameter 4 in. (d)

CALCULATION OF CASING VOLUME

Depth of Water Below MP _____ ft. (e)

Water Level Elevation (a-e) _____ ft. (f)

Step 1: Height of Water in Well, $H = f - (b - c) =$ _____ ft.

Step 2: Cross-sectional Area of Casing, $A = \pi \times d^2 / 576 =$ 0.0872 ft²

Step 3: Volume of Water in Casing, $V = A \times H \times 7.48 =$ _____ gal

56

Sampling/Development System (check one) Dedicated ☐ Non-dedicated ☐

Purging Apparatus: Type: _____

Sampling Apparatus: Type: _____

Cleaning Methods _____

FIELD OBSERVATIONS

Weather Conditions Sunny 60's

Well Head Conditions New

Comments _____

Project Name/Client _____

Well Number MA-25BDate 3/12/10

FIELD MEASUREMENTS

Time	Pump Rate (gpm)	Cumulative Vol. Removed (gal)	Temp (°C)	pH	Spec. Cond. (umhos/cm at 25° C)	NTU	TDS g/L	ORP Odor/Clarity/Color
1718	10gpm	305	32.2	7.12	4.87	794	3.12	118
1724	10gpm	365	31.63	7.38	4.82	400	3.08	176
1730	10gpm	425	31.53	7.40	4.88	302	3.12	168
1737	10gpm	495	31.38	7.39	4.88	230	3.12	180
1831	10gpm	660	30.62	7.19	4.86	199	3.11	165
1840	10gpm	750	30.91	7.16	4.86	180	3.11	139
1850	10gpm	850	30.88	7.19	4.89	149	3.13	150
1900	10gpm	950	30.39	7.29	4.86	149	3.11	171
2007	10gpm	1150	30.30	7.14	4.84	130	3.09	157

Total Vol. Purged _____ (gal) Casing Vol. Purged _____

Final Water Level After Purging _____ ft. Below MP; Time _____

Fate of Purged Water

Bailed 185 gal flow rate 10Start time 1705continue time 1815break @ 1740break @ 1917 continue @ 1743

SAMPLE INVENTORY

Label	Time	Number of Bottles	Analysis	F	P	Remarks

F = Filtered (Y,N) P = Preservative (Type)

Sampler(s) _____

Signatures(s) _____

Project Name/Client _____

Well Number MW-25BDate 3/21/10

FIELD MEASUREMENTS								
Time	Pump Rate (gpm)	Cumulative Vol. Removed (gal)	Temp (°C)	pH	Spec. Cond. (umhos/cm at 25° C)	NTU Particulates	TDS g/L Odor	ORS Clarity/Color
2025	10 gpm	1330	30.26	7.13	4.87	112	3.09	151
2037	10 gpm	1450	29.95	7.28	4.87	103	3.12	187

Total Vol. Purged 1450 (gal) Casing Vol. Purged _____Final Water Level After Purging 81.5 ft. Below MP; Time _____

Fate of Purged Water _____

SAMPLE INVENTORY

Label	Time	Number of Bottles	Analysis	F	P	Remarks

F = Filtered (Y,N) P = Preservative (Type)

Sampler(s) _____

Signatures(s) _____

APPENDIX F

MW-25A and MW-25B Survey Reports

NICKLAUS ENGINEERING, INC.

1851 W. 24th Street
YUMA, AZ 85364
(928) 344-8374
FAX (928) 726-6994

JOB WQARE SITE (HOUSTON PHOTO) YUMA, AZ
SHEET NO. 1 OF 1
CALCULATED BY R.S. DATE 4/21/10
CHECKED BY T.V.E. DATE 4/22/10
SCALE N.A.

LOCAL DATUM

<u>NORTHING (FT)</u>	<u>EASTING (FT)</u>	<u>ELEV. (FT)</u>	<u>M.W. DESCRIPTION</u>
12111.742,	9336.421,	199.34	"25B RIM"
12111.716,	9336.430,	199.06	"25B CASING"
12102.032,	9336.892,	199.31	"25A RIM"
12102.002,	9337.036,	198.72	"25A CASING"

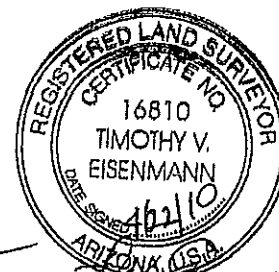
ARIZONA WEST DATUM

<u>NORTHING (FT)</u>	<u>EASTING (FT)</u>	<u>ELEV. (FT)</u>	<u>M.W. DESCRIPTION</u>
618426.013,	432914.830,	199.34	"25B RIM"
618425.995,	432914.849,	199.06	"25B CASING"
618416.337,	432915.314,	199.31	"25A RIM"
618416.269,	432915.462,	198.72	"25A CASING"

LATITUDE
32°41'49.37570"N
32°41'49.37544"N
32°41'49.27966"N
32°41'49.27938"N

LONGITUDE
114°37'05.47975"W
114°37'05.47965"W
114°37'05.47333"W
114°37'05.47164"W

M.W. DESCRIPTION
MW 25B RIM
MW 25B CASING
MW 25A RIM
MW 25A CASING



Timothy Eisenmann
EXPIRES 7/30/11

APPENDIX G

Groundwater Analytical Laboratory Reports



ORANGE COAST ANALYTICAL, INC.

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LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

3002 Dow Suite 532 Tustin, CA 92780

(714) 832-0064

Laboratory Certification (ELAP) No.: 2576

Expiration Date: 2011

Los Angeles County Sanitation District Lab ID# 10206

Laboratory Director's Name:

Mark Noorani

Client: GeoTrans, Inc.

Laboratory Reference: GTI AZ6377

Project Name: 20th & Factor

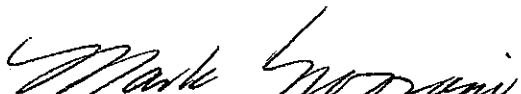
Project Number: 1303.036.02

Date Received: 4/29/2010

Date Reported: 5/10/2010

Chain of Custody Received: ☒

Analytical Method: 8260B, SM4500-CN G, SM4500-CN E,


Mark Noorani, Laboratory Director

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Ms. Jasenka Zbozinek
GeoTrans, Inc.
4801 E. Washington St Ste 260
Phoenix, AZ, 85034

Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
DMW-11-042610	AZ6377-001	4/29/2010	4/26/2010	5/3/2010	5/3/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u>	<u>1</u>	<u>Data Qualifiers:</u>	<u>None</u>
Dibromofluoromethane:	113	63-150 %				
Toluene-d8:	102	52-130 %				
4-Bromofluorobenzene:	100	53-130 %				

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Phoenix, AZ, 85034

Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-25A-042610	AZ6377-002	4/29/2010	4/26/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	ug/L	ANALYTE	CAS #	ug/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	1.4	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

Surrogate:	% RC	Acceptable % RC	Dilution Factor: 1
Dibromofluoromethane:	120	63-150 %	Data Qualifiers: None
Toluene-d8:	104	52-130 %	
4-Bromofluorobenzene:	103	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-25B-042710	AZ6377-003	4/29/2010	4/27/2010	5/3/2010	5/3/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	1.4	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	0.72	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u>	<u>1</u>	<u>Data Qualifiers:</u>	<u>None</u>
Dibromofluoromethane:	116	63-150 %				
Toluene-d8:	101	52-130 %				
4-Bromofluorobenzene:	97	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-16A-042710	AZ6377-004	4/29/2010	4/27/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	1.0	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	115	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	102	52-130 %	
4-Bromofluorobenzene:	100	53-130 %	

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Phoenix, AZ, 85034

Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-13A-042710	AZ6377-005	4/29/2010	4/27/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	1.6	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	116	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	99	52-130 %	
4-Bromofluorobenzene:	98	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-23B-042710	AZ6377-006	4/29/2010	4/27/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	0.95	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	123	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	101	52-130 %	
4-Bromofluorobenzene:	99	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-17C-042710	AZ6377-007	4/29/2010	4/27/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	118	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	103	52-130 %	
4-Bromofluorobenzene:	102	53-130 %	

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Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-17A-042710	AZ6377-008	4/29/2010	4/27/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	ug/L	ANALYTE	CAS #	ug/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	2.0	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	119	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	101	52-130 %	
4-Bromofluorobenzene:	97	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-9A-042710	AZ6377-009	4/29/2010	4/27/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	1.6	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	121	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	102	52-130 %	
4-Bromofluorobenzene:	100	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-101A-042710	AZ6377-010	4/29/2010	4/27/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.5
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	<0.5	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.5
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	119	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	100	52-130 %	
4-Bromofluorobenzene:	101	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-8C-042810	AZ6377-011	4/29/2010	4/28/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	11
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	3.7
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	1.2			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	123	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	101	52-130 %	
4-Bromofluorobenzene:	98	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-24B-042810	AZ6377-012	4/29/2010	4/28/2010	5/3/2010	5/3/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	1.4	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
Surrogate:	% RC	Acceptable % RC	Dilution Factor:	1		
Dibromofluoromethane:	119	63-150 %	Data Qualifiers:	None		
Toluene-d8:	102	52-130 %				
4-Bromofluorobenzene:	101	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-21A-042810	AZ6377-013	4/29/2010	4/28/2010	5/3/2010	5/3/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	2.1	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
Surrogate:	% RC	Acceptable % RC	Dilution Factor:	1		
Dibromofluoromethane:	123	63-150 %	Data Qualifiers:	None		
Toluene-d8:	102	52-130 %				
4-Bromofluorobenzene:	99	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-21B-042810	AZ6377-014	4/29/2010	4/28/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	0.62	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	16
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	117	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	103	52-130 %	
4-Bromofluorobenzene:	100	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-21C-042810	AZ6377-015	4/29/2010	4/28/2010	5/3/2010	5/3/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	0.68	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	123	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	102	52-130 %	
4-Bromofluorobenzene:	99	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-12A-042810	AZ6377-016	4/29/2010	4/28/2010	5/3/2010	5/3/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	2.1	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	3.4	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u>	<u>1</u>	<u>Data Qualifiers:</u>	<u>None</u>
Dibromofluoromethane:	113	63-150 %				
Toluene-d8:	101	52-130 %				
4-Bromofluorobenzene:	97	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-18A-042810	AZ6377-017	4/29/2010	4/28/2010	5/3/2010	5/3/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	13	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	1.9	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	14	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	4.4				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
Surrogate:	% RC	Acceptable % RC	Dilution Factor:	1		
Dibromofluoromethane:	121	63-150 %	Data Qualifiers:	None		
Toluene-d8:	102	52-130 %				
4-Bromofluorobenzene:	99	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-8B-042810	AZ6377-018	4/29/2010	4/28/2010	5/7/2010	5/7/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	2.1
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	78
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	4.4	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	26
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	11			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	98	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	96	52-130 %	
4-Bromofluorobenzene:	89	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-8A-042810	AZ6377-019	4/29/2010	4/28/2010	5/7/2010	5/7/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	97
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	2.3	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	36
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	17			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	102	63-150 %	<u>Data Qualifiers:</u> None
Toluene-d8:	96	52-130 %	
4-Bromofluorobenzene:	91	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-15A-042910	AZ6377-020	4/29/2010	4/29/2010	5/6/2010	5/6/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	2.8	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u>	<u>1</u>		
Dibromofluoromethane:	93	63-150 %	<u>Data Qualifiers:</u>	None		
Toluene-d8:	96	52-130 %				
4-Bromofluorobenzene:	93	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-103C-042910	AZ6377-021	4/29/2010	4/29/2010	5/7/2010	5/7/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	7.1	Isopropylbenzene	98-82-8	<0.5	
Bromoform	75-25-2	2.0	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	3.1	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	6.7	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	1.0	
Dibromochloromethane	124-48-1	7.4	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u>	<u>1</u>	<u>Data Qualifiers:</u>	<u>None</u>
Dibromofluoromethane:	102	63-150 %				
Toluene-d8:	96	52-130 %				
4-Bromofluorobenzene:	93	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-102B1-042910	AZ6377-022	4/29/2010	4/29/2010	5/6/2010	5/6/2010	Water

ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50
Bromodichloromethane	75-27-4	7.2	Isopropylbenzene	98-82-8	<0.50
Bromoform	75-25-2	2.1	4-Isopropyltoluene	99-87-6	<0.50
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	9.2
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50
Chloroform	67-66-3	6.5	1,2,4-Trichlorobenzene	120-82-1	<0.50
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	0.57
Dibromochloromethane	124-48-1	7.7	Trichlorofluoromethane	75-69-4	<2.0
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0
1,4-Dichlorobenzene	106-46-7	<0.50			
1,1-Dichloroethane	75-34-3	<0.50			
1,2-Dichloroethane	107-06-2	<0.50			
1,1-Dichloroethene	75-35-4	<1.0			
cis-1,2-Dichloroethene	156-59-2	<1.0			
trans-1,2-Dichloroethene	156-60-5	<0.50			
Dichlorodifluoromethane	75-71-8	<2.0			
1,2-Dichloropropane	78-87-5	<1.0			
1,3-Dichloropropane	142-28-9	<0.50			
2,2-Dichloropropane	594-20-7	<0.50			
1,1-Dichloropropene	563-58-6	<0.50			

Surrogate:	% RC	Acceptable % RC	Dilution Factor: 1
Dibromofluoromethane:	98	63-150 %	Data Qualifiers: None
Toluene-d8:	96	52-130 %	
4-Bromofluorobenzene:	92	53-130 %	

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Trip Blank	AZ6377-023	4/29/2010		5/6/2010	5/6/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride.	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u>	<u>1</u>	<u>Data Qualifiers:</u>	<u>None</u>
Dibromofluoromethane:	99	63-150 %				
Toluene-d8:	95	52-130 %				
4-Bromofluorobenzene:	92	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT0503101			5/3/2010	5/3/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
Surrogate:	% RC	Acceptable % RC	Dilution Factor:	1		
Dibromofluoromethane:	112	63-150 %	Data Qualifiers:	None		
Toluene-d8:	102	52-130 %				
4-Bromofluorobenzene:	99	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT0506101			5/6/2010	5/6/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
Surrogate:	% RC	Acceptable % RC	Dilution Factor:	1		
Dibromofluoromethane:	99	63-150 %	Data Qualifiers:	None		
Toluene-d8:	97	52-130 %				
4-Bromofluorobenzene:	94	53-130 %				

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Lab Reference # GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank:	MBTT0507101			5/7/2010	5/3/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
Surrogate:	% RC	Acceptable % RC	Dilution Factor:	1		
Dibromofluoromethane:	98	63-150 %	Data Qualifiers:	None		
Toluene-d8:	96	52-130 %				
4-Bromofluorobenzene:	94	53-130 %				

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Lab Reference #: GTI AZ6377
 Project Name: 20th & Factor
 Project #: 1303.036.02

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix		
DMW-11-042610	AZ6377-001	4/29/2010	4/26/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-25A-042610	AZ6377-002	4/29/2010	4/26/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-25B-042710	AZ6377-003	4/29/2010	4/27/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-16A-042710	AZ6377-004	4/29/2010	4/27/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-13A-042710	AZ6377-005	4/29/2010	4/27/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/3/2010	<0.02	mg/L	--
MW-23B-042710	AZ6377-006	4/29/2010	4/27/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-17C-042710	AZ6377-007	4/29/2010	4/27/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-17A-042710	AZ6377-008	4/29/2010	4/27/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-9A-042710	AZ6377-009	4/29/2010	4/27/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--

Ms. Jasenka Zbozinek
GeoTrans, Inc.
4801 E. Washington St Ste 260
Phoenix, AZ, 85034

Lab Reference #: GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix		
MW-101A-042710	AZ6377-010	4/29/2010	4/27/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-8C-042810	AZ6377-011	4/29/2010	4/28/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-24B-042810	AZ6377-012	4/29/2010	4/28/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Amenable	SM4500-CN G	5/6/2010	5/6/2010	0.64	mg/L	--
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	0.64	mg/L	--
MW-21A-042810	AZ6377-013	4/29/2010	4/28/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-21B-042810	AZ6377-014	4/29/2010	4/28/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-21C-042810	AZ6377-015	4/29/2010	4/28/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-12A-042810	AZ6377-016	4/29/2010	4/28/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
MW-18A-042810	AZ6377-017	4/29/2010	4/28/2010	Water		
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--

Ms. Jasenka Zbozinek
GeoTrans, Inc.
4801 E. Washington St Ste 260
Phoenix, AZ, 85034

Lab Reference #: GTI AZ6377
Project Name: 20th & Factor
Project #: 1303.036.02

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix			
MW-8B-042810	AZ6377-018	4/29/2010	4/28/2010	Water			
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>	
Cyanide, Amenable	SM4500-CN G	5/6/2010	5/6/2010	0.032	mg/L	--	
Cyanide, Total	SM4500-CN E	5/3/2010	5/4/2010	0.032	mg/L	--	
MW-8A-042810	AZ6377-019	4/29/2010	4/28/2010	Water			
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>	
Cyanide, Amenable	SM4500-CN G	5/6/2010	5/6/2010	0.19	mg/L	--	
Cyanide, Total	SM4500-CN E	5/4/2010	5/4/2010	0.19	mg/L	--	
MW-15A-042910	AZ6377-020	4/29/2010	4/29/2010	Water			
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>	
Cyanide, Total	SM4500-CN E	5/4/2010	5/4/2010	<0.02	mg/L	--	
MW-103C-042910	AZ6377-021	4/29/2010	4/29/2010	Water			
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>	
Cyanide, Total	SM4500-CN E	5/4/2010	5/4/2010	<0.02	mg/L	--	
MW-102B1-042910	AZ6377-022	4/29/2010	4/29/2010	Water			
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>	
Cyanide, Total	SM4500-CN E	5/4/2010	5/4/2010	<0.02	mg/L	--	
Method Blank				Water			
<u>ANALYTE</u>	<u>MB ID</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Total	MBIR0503101	SM4500-CN E	5/3/2010	5/4/2010	<0.02	mg/L	--
Method Blank				Water			
<u>ANALYTE</u>	<u>MB ID</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>	<u>Qual</u>
Cyanide, Amenable	MBIR0506101	SM4500-CN G	5/6/2010	5/6/2010	<0.02	mg/L	--
Cyanide, Total	MBIR0504101	SM4500-CN E	5/4/2010	5/4/2010	<0.02	mg/L	--

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 5/3/2010

Date of Analysis: 5/3/2010

Dup Date of Analysis: 5/3/2010

Laboratory Sample #: AZ6377-001

MS/MSD Qualifiers: M1,

Reference #: GTI AZ6377

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
1,1-Dichloroethene	0.0	25	29	32	116	128	10	47-155	38	<input type="checkbox"/>
Benzene	0.0	25	33	35	132	140	6	55-134	15	<input checked="" type="checkbox"/>
Trichloroethene	0.0	25	29	31	116	124	7	42-151	15	<input type="checkbox"/>
Toluene	0.0	25	32	33	128	132	3	52-145	19	<input type="checkbox"/>
Chlorobenzene	0.0	25	33	33	132	132	0	56-143	18	<input type="checkbox"/>

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	Qual	ACP % RC
Dibromofluoromethane	113	121	<input type="checkbox"/>	112	<input type="checkbox"/>	63-150 %
Toluene-d8	104	101	<input type="checkbox"/>	103	<input type="checkbox"/>	52-130 %
4-Bromofluorobenzene	102	98	<input type="checkbox"/>	99	<input type="checkbox"/>	53-130 %

Laboratory Control Sample

Date of Extraction: 5/3/2010

Date of Analysis: 5/3/2010

Laboratory Sample #: TT0503101

LCS Qualifiers: None

Analyte	SP CONC	Results	% Recovery	Acceptable %	Qual
1,1-Dichloroethene	25	29	116	34-169	<input type="checkbox"/>
Benzene	25	31	124	53-137	<input type="checkbox"/>
Trichloroethene	25	29	116	49-147	<input type="checkbox"/>
Toluene	25	31	124	54-144	<input type="checkbox"/>
Chlorobenzene	25	31	124	53-146	<input type="checkbox"/>

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 5/6/2010

Date of Analysis: 5/6/2010

Dup Date of Analysis: 5/6/2010

Laboratory Sample #: AZ6377-020

MS/MSD Qualifiers: None

Reference #: GT1 AZ6377

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
1,1-Dichloroethene	0.0	25	18	23	72	92	24	47-155	38	<input type="checkbox"/>
Benzene	0.0	25	26	25	104	100	4	55-134	15	<input type="checkbox"/>
Trichloroethene	0.0	25	26	24	104	96	8	42-151	15	<input type="checkbox"/>
Toluene	0.0	25	27	25	108	100	8	52-145	19	<input type="checkbox"/>
Chlorobenzene	0.0	25	27	27	108	108	0	56-143	18	<input type="checkbox"/>

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	Qual	ACP % RC
Dibromofluoromethane	96	97	<input type="checkbox"/>	94	<input type="checkbox"/>	63-150 %
Toluene-d8	94	95	<input type="checkbox"/>	94	<input type="checkbox"/>	52-130 %
4-Bromofluorobenzene	93	93	<input type="checkbox"/>	94	<input type="checkbox"/>	53-130 %

Laboratory Control Sample

Date of Extraction: 5/6/2010

Date of Analysis: 5/6/2010

Laboratory Sample #: TT0506101

LCS Qualifiers: None

Analyte	SP CONC	Results	% Recovery	Acceptable %	Qual
1,1-Dichloroethene	25	22	88	34-169	<input type="checkbox"/>
Benzene	25	27	108	53-137	<input type="checkbox"/>
Trichloroethene	25	27	108	49-147	<input type="checkbox"/>
Toluene	25	28	112	54-144	<input type="checkbox"/>
Chlorobenzene	25	29	116	53-146	<input type="checkbox"/>

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 5/7/2010

Date of Analysis: 5/7/2010

Dup Date of Analysis: 5/7/2010

Laboratory Sample #: AZ6376-001

MS/MSD Qualifiers: R5,

Reference #: GTI AZ6377

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
1,1-Dichloroethene	0.0	25	15	21	60	84	33	47-155	38	<input type="checkbox"/>
Benzene	0.0	25	22	32	88	128	37	55-134	15	<input checked="" type="checkbox"/>
Trichloroethene	0.0	25	21	31	84	124	38	42-151	15	<input checked="" type="checkbox"/>
Toluene	0.0	25	22	31	88	124	34	52-145	19	<input checked="" type="checkbox"/>
Chlorobenzene	0.0	25	24	32	96	128	29	56-143	18	<input checked="" type="checkbox"/>

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	Qual	ACP % RC
Dibromofluoromethane	96	100	<input type="checkbox"/>	83	<input type="checkbox"/>	63-150 %
Toluene-d8	94	94	<input type="checkbox"/>	95	<input type="checkbox"/>	52-130 %
4-Bromofluorobenzene	90	91	<input type="checkbox"/>	94	<input type="checkbox"/>	53-130 %

Laboratory Control Sample

Date of Extraction: 5/7/2010

Date of Analysis: 5/7/2010

Laboratory Sample #: TT0507101

LCS Qualifiers: None

Analyte	SP CONC	Results	% Recovery	Acceptable %	Qual
1,1-Dichloroethene	25	23	92	34-169	<input type="checkbox"/>
Benzene	25	27	108	53-137	<input type="checkbox"/>
Trichloroethene	25	26	104	49-147	<input type="checkbox"/>
Toluene	25	27	108	54-144	<input type="checkbox"/>
Chlorobenzene	25	28	112	53-146	<input type="checkbox"/>

QA/QC Report
for Inorganics
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reference #: GT1 AZ6377

Analyte	Date Extracted	Date Analyzed	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Cyanide, Total	5/4/2010	5/4/2010	AZ6377-019	0.19	0.15	0.289	0.277	66	58	4	56-136	14	--
Cyanide, Total	5/3/2010	5/4/2010	AZ6377-011	0	0.15	0.118	0.108	79	72	9	56-136	14	--
Cyanide, Total	5/3/2010	5/4/2010	AZ6377-001	0	0.15	0.115	0.114	77	76	1	56-136	14	--

Laboratory Control Sample

Analyte	Date Extracted	Date Analyzed	QC Sample	SP CONC	Results	% LCS	ACP %	Qual
Cyanide, Total	5/4/2010	5/4/2010	IR0504101	0.15	0.148	99	90-110	--
Cyanide, Total	5/3/2010	5/4/2010	IR0503101	0.15	0.136	91	90-110	--

Data Qualifier Definitions

Qualifier

M1 = Matrix spike recovery was high, the associated blank spike recovery was acceptable.

AZ6377-001	8260B	Benzene	MSD
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R5 = MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

AZ6376-001	8260B	Benzene	MS
AZ6376-001	8260B	Chlorobenzene	MS
AZ6376-001	8260B	Toluene	MS
AZ6376-001	8260B	Trichloroethene	MS

Definition of terms:

R1	Results Of Laboratory Sample Number
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
%MS	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
%MSD	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
LCS	Laboratory Control Sample Results
LCSD	Laboratory Control Sample Duplicate Results
%LCS	Percent Recovery Of LCS: $\{(LCS-R1) / SP\} \times 100$
%LCSD	Percent Recovery Of LCSD: $\{(LCSD-R1) / SP\} \times 100$
RPD (for LCS/LCSD)	Relative Percent Difference: $\{(LCS-LCSD) / (LCS+LCSD)\} \times 100 \times 2$
ACP %MS(MSD)	Acceptable Range of Percent
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was required for this analyte; see attached explanation.
ND	Analyte Not Detected

Analysis Request and Chain of Custody Record



ORANGE COAST ANALYTICAL, INC.

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Phoenix, AZ 85040

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Lab Job No: 126377
Page 1 of 2

REQUIRED TURN AROUND TIME: Standard: X
72 Hours: 48 Hours: 24 Hours:

CUSTOMER INFORMATION		PROJECT INFORMATION						ANALYSIS REQUEST / PRESERVATIVE										REMARKS/PRECAUTIONS
COMPANY: <u>GeoTrans</u>	PROJECT NAME: <u>20th Factor</u>	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE												
SEND REPORT TO: <u>Jasone Zbozine K</u>	NUMBER: <u>1303.036.02</u>																	
EMAIL: <u>Jzbozine K@geotransinc.com</u>	ADDRESS: <u>4801 E Washington Suite 200, Phoenix, AZ 85034</u>																	
ADDRESS: <u>4801 E Washington Suite 200, Phoenix, AZ 85034</u>	P.O.#:																	
PHONE: <u>602-682-3320</u> FAX: <u>602-682-3310</u>	SAMPLED BY: <u>T. Glock / B. Boden</u>																	
<u>DMW-11-042610</u>	<u>3</u>	<u>4/26/10</u>	<u>1515</u>	<u>H₂O</u>	<u>glass</u>	<u>X</u>											<u>AZ6377 - 001</u>	
<u>MW-25A-042610</u>	<u>3</u>	<u>4/26/10</u>	<u>1808</u>	<u>H₂O</u>	<u>glass</u>	<u>X</u>											<u>002</u>	
<u>MW-25B-042710</u>	<u>1</u>	<u>4/27/10</u>	<u>0856</u>			<u>X</u>											<u>003</u>	
<u>MW-16A-042710</u>	<u>1</u>	<u>4/27/10</u>	<u>1021</u>			<u>X</u>											<u>004</u>	
<u>MW-13A-042710</u>	<u>1</u>	<u>4/27/10</u>	<u>1125</u>			<u>X</u>											<u>005</u>	
<u>MW-23B-042710</u>	<u>1</u>	<u>4/27/10</u>	<u>1240</u>			<u>X</u>											<u>006</u>	
<u>MW-17C-042710</u>	<u>1</u>	<u>4/27/10</u>	<u>1420</u>			<u>X</u>											<u>007</u>	
<u>MW-17A-042710</u>	<u>1</u>	<u>4/27/10</u>	<u>1450</u>			<u>X</u>											<u>008</u>	
<u>MW-9A-042710</u>	<u>1</u>	<u>4/27/10</u>	<u>1540</u>			<u>X</u>											<u>009</u>	
<u>MW-101A-042710</u>	<u>1</u>	<u>4/27/10</u>	<u>1610</u>			<u>X</u>											<u>010</u>	
<u>MW-8C-042810</u>	<u>1</u>	<u>4/28/10</u>	<u>0902</u>			<u>X</u>											<u>011</u>	
<u>MW-24B-042810</u>	<u>1</u>	<u>4/28/10</u>	<u>1015</u>			<u>X</u>											<u>012</u>	
<u>MW-21A-042810</u>	<u>1</u>	<u>4/28/10</u>	<u>1058</u>			<u>X</u>											<u>013</u>	
<u>MW-21B-042810</u>	<u>1</u>	<u>4/28/10</u>	<u>1200</u>			<u>X</u>											<u>014</u>	

Total No. of Samples: 23 Method of Shipment: Hand Preservative: 1 = Ice 2 = HCl 3 = HNO₃ 4 = H₂SO₄ 5 = NaOH 6 = Other

Relinquished By: <u>[Signature]</u> Date/Time: <u>4/29/10 1400</u>	Received By: <u>[Signature]</u> Date/Time: <u>4/29/10</u>	Sample Matrix: WW - Wastewater DW - Drinking Water SS - Soil/Solid GW - Groundwater OT - Other
Relinquished By: Date/Time:	Received By: Date/Time:	
Relinquished By: Date/Time:	Received For Lab By: Date/Time:	Sample Integrity: Intact <u>Yes</u> On Ice <u>Yes</u> °C

Analysis Request and Chain of Custody Record

ORANGE COAST ANALYTICAL, INC.

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Lab Job No: AZ-377

Page 2 of 2

REQUIRED TURN AROUND TIME: Standard: X

72 Hours: 48 Hours: 24 Hours:

CUSTOMER INFORMATION		PROJECT INFORMATION					ANALYSIS REQUEST / PRESERVATIVE										REMARKS/PRECAUTIONS
COMPANY: <u>GeoTrans</u>	PROJECT NAME: <u>20th & Factor</u>	ANALYSIS REQUEST / PRESERVATIVE <u>0260 B</u> <u>EPA 5MYSOCCN</u>															
SEND REPORT TO: <u>Jasenka Zlobinick</u>	NUMBER: <u>1303.036.02</u>																
EMAIL: <u>JZlobinick@geotrans.com</u>	ADDRESS:																
ADDRESS: <u>4801 E Washington St, Suite 260</u>	P.O. #:																
PHONE: <u>602-682-3326</u> FAX: <u>-3340</u>	SAMPLED BY: <u>T. Glick / B. Boden</u>																
SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE												
MW-2C-042810	3	4/28/10	1417	H ₂ O	g/SS	X	X										AZ6377-015
MW-12A-042810		4/28/10	1515														016
MW-18A-042810		4/28/10	1552														017
MW-8B-042810		4/28/10	1636														018
MW-8A-042810	✓	4/28/10	1710	✓	✓	✓	✓										019
MW-15A-042810		4/29/10	0837														020
MW-103C-042910		4/29/10	0926														021
MW-102B-042910	✓	4/29/10	0957	✓	✓	✓	✓										022
Trip blank	✓	-	-	H ₂ O	g/SS	X											023

Total No. of Samples: 23 Method of Shipment: Hand Preservative: 1 = Ice 2 = HCl 3 = HNO₃ 4 = H₂SO₄ 5 = NaOH 6 = Other

Relinquished By: <u>[Signature]</u> Date/Time: <u>4/29/10 1400</u>	Received By: <u>[Signature]</u> Date/Time: <u>1400</u>	Sample Matrix: WW - Wastewater DW - Drinking Water SS - Soil/Solid GW - Groundwater OT - Other
Relinquished By: Date/Time:	Received By: Date/Time:	
Relinquished By: Date/Time:	Received For Lab By: Date/Time:	Sample Integrity: Intact On Ice <u>Yes</u> °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment to be made by check



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

4620 East Elwood Street, Suite 4 Phoenix, AZ 85040

(480) 736-0960

Laboratory Certification (ADHS) No.: AZ0558, AZ0646, AZM499
Expiration Date: 2010

Laboratory Director's Name:
Mark Noorani

Client: GeoTrans, Inc.

Laboratory Reference: GTI AZ6382

Project Name: 20th & Factor


Project Number: 130.036.02

Date Received: 5/4/2010

Date Reported: 5/10/2010

Chain of Custody Received: ☒

Analytical Method: 8260B, SM4500-CN E,


Mark Noorani, Laboratory Director

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Ms. Jasenka Zbozinek
GeoTrans, Inc.
4801 E. Washington St Ste 260
Phoenix, AZ, 85034

Lab Reference # GTI AZ6382
Project Name: 20th & Factor
Project #: 130.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
St Francis - 043010	AZ6382-001	5/4/2010	4/30/2010	5/6/2010	5/6/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1			
Dibromofluoromethane:	98	63-150 %	<u>Data Qualifiers:</u> None			
Toluene-d8:	92	52-130 %				
4-Bromofluorobenzene:	91	53-130 %				

Ms. Jasenka Zbozinek
GeoTrans, Inc.
4801 E. Washington St Ste 260
Phoenix, AZ, 85034

Lab Reference # GTI AZ6382
Project Name: 20th & Factor
Project #: 130.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Alice - 043010	AZ6382-002	5/4/2010	4/30/2010	5/6/2010	5/6/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1			
Dibromofluoromethane:	99	63-150 %	<u>Data Qualifiers:</u> None			
Toluene-d8:	94	52-130 %				
4-Bromofluorobenzene:	94	53-130 %				

Ms. Jasenka Zbozinek
GeoTrans, Inc.
4801 E. Washington St Ste 260
Phoenix, AZ, 85034

Lab Reference # GTI AZ6382
Project Name: 20th & Factor
Project #: 130.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Trip Blank	AZ6382-003	5/4/2010		5/6/2010	5/6/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1			
Dibromofluoromethane:	100	63-150 %	<u>Data Qualifiers:</u> None			
Toluene-d8:	94	52-130 %				
4-Bromofluorobenzene:	90	53-130 %				

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4801 E. Washington St Ste 260
Phoenix, AZ, 85034

Lab Reference # GTI AZ6382
Project Name: 20th & Factor
Project #: 130.036.02

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT0506101			5/6/2010	5/6/2010	Water
ANALYTE	CAS #	µg/L	ANALYTE	CAS #	µg/L	
Acetone	67-64-1	<5.0	cis-1,3-Dichloropropene	10061-01-5	<0.50	
Benzene	71-43-2	<0.50	trans-1,3-Dichloropropene	10061-02-6	<0.50	
Bromobenzene	108-86-1	<0.50	Ethylbenzene	100-41-4	<0.50	
Bromochloromethane	74-97-5	<0.50	Hexachlorobutadiene	87-68-3	<0.50	
Bromodichloromethane	75-27-4	<1.0	Isopropylbenzene	98-82-8	<0.50	
Bromoform	75-25-2	<0.50	4-Isopropyltoluene	99-87-6	<0.50	
Bromomethane	74-83-9	<5.0	Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	
2-Butanone (MEK)	78-93-3	<20	Naphthalene	91-20-3	<0.50	
n-Butylbenzene	104-51-8	<0.50	n-Propylbenzene	103-65-1	<0.50	
sec-Butylbenzene	135-98-8	<0.50	Styrene	100-42-5	<0.50	
tert-Butylbenzene	98-06-6	<0.50	1,1,1,2-Tetrachloroethane	630-20-6	<0.50	
Carbon Disulfide	75-15-0	<0.50	1,1,2,2-Tetrachloroethane	79-34-5	<0.50	
Carbon tetrachloride	56-23-5	<0.50	Tetrachloroethene	127-18-4	<0.50	
Chlorobenzene	108-90-7	<0.50	Toluene	108-88-3	<0.50	
Chloroethane	75-00-3	<5.0	1,2,3-Trichlorobenzene	87-61-6	<0.50	
Chloroform	67-66-3	<0.50	1,2,4-Trichlorobenzene	120-82-1	<0.50	
Chloromethane	74-87-3	<5.0	1,1,1-Trichloroethane	71-55-6	<0.50	
2-Chlorotoluene	95-49-8	<0.50	1,1,2-Trichloroethane	79-00-5	<0.50	
4-Chlorotoluene	106-43-4	<0.50	Trichloroethene	79-01-6	<0.50	
Dibromochloromethane	124-48-1	<0.50	Trichlorofluoromethane	75-69-4	<2.0	
1,2-Dibromo-3-chloropropane	96-12-8	<2.0	1,2,3-Trichloropropane	96-18-4	<0.50	
1,2-Dibromoethane	106-93-4	<0.50	1,2,4-Trimethylbenzene	95-63-6	<0.50	
Dibromomethane	74-95-3	<0.50	1,3,5-Trimethylbenzene	108-67-8	<0.50	
1,2-Dichlorobenzene	95-50-1	<0.50	Vinyl Chloride	75-01-4	<0.50	
1,3-Dichlorobenzene	541-73-1	<0.50	Total Xylenes	1330-20-7	<2.0	
1,4-Dichlorobenzene	106-46-7	<0.50				
1,1-Dichloroethane	75-34-3	<0.50				
1,2-Dichloroethane	107-06-2	<0.50				
1,1-Dichloroethene	75-35-4	<1.0				
cis-1,2-Dichloroethene	156-59-2	<1.0				
trans-1,2-Dichloroethene	156-60-5	<0.50				
Dichlorodifluoromethane	75-71-8	<2.0				
1,2-Dichloropropane	78-87-5	<1.0				
1,3-Dichloropropane	142-28-9	<0.50				
2,2-Dichloropropane	594-20-7	<0.50				
1,1-Dichloropropene	563-58-6	<0.50				
Surrogate:	% RC	Acceptable % RC	Dilution Factor:	1		
Dibromofluoromethane:	99	63-150 %	Data Qualifiers:	None		
Toluene-d8:	97	52-130 %				
4-Bromofluorobenzene:	94	53-130 %				

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Lab Reference # GTI AZ6382
 Project Name: 20th & Factor
 Project #: 130.036.02

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix		
St Francis - 043010	AZ6382-001	5/4/2010	4/30/2010	Water		
<u>ANALYTE</u>		<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u> <u>Qual</u>
Cyanide, Total	SM4500-CN E	5/4/2010	5/4/2010	<0.02	mg/L	--
Alice - 043010	AZ6382-002	5/4/2010	4/30/2010	Water		
<u>ANALYTE</u>		<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u> <u>Qual</u>
Cyanide, Total	SM4500-CN E	5/4/2010	5/4/2010	<0.02	mg/L	--
Method Blank				Water		
<u>ANALYTE</u>	<u>MB ID</u>	<u>EPA Method</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u> <u>Qual</u>
Cyanide, Total	MBIR0504101	SM4500-CN E	5/4/2010	5/4/2010	<0.02	mg/L --

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 5/6/2010

Date of Analysis: 5/6/2010

Dup Date of Analysis: 5/6/2010

Laboratory Sample #: AZ6377-020

MS/MSD Qualifiers: None

Reference #: GTI AZ6382

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
1,1-Dichloroethene	0.0	25	18	23	72	92	24	47-155	38	<input type="checkbox"/>
Benzene	0.0	25	26	25	104	100	4	55-134	15	<input type="checkbox"/>
Trichloroethene	0.0	25	26	24	104	96	8	42-151	15	<input type="checkbox"/>
Toluene	0.0	25	27	25	108	100	8	52-145	19	<input type="checkbox"/>
Chlorobenzene	0.0	25	27	27	108	108	0	56-143	18	<input type="checkbox"/>

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	Qual	ACP % RC
Dibromofluoromethane	96	97	<input type="checkbox"/>	94	<input type="checkbox"/>	63-150 %
Toluene-d8	94	95	<input type="checkbox"/>	94	<input type="checkbox"/>	52-130 %
4-Bromofluorobenzene	93	93	<input type="checkbox"/>	94	<input type="checkbox"/>	53-130 %

Laboratory Control Sample

Date of Extraction: 5/6/2010

Date of Analysis: 5/6/2010

Laboratory Sample #: TT0506101

LCS Qualifiers: None

Analyte	SP CONC	Results	% Recovery	Acceptable %	Qual
1,1-Dichloroethene	25	22	88	34-169	<input type="checkbox"/>
Benzene	25	27	108	53-137	<input type="checkbox"/>
Trichloroethene	25	27	108	49-147	<input type="checkbox"/>
Toluene	25	28	112	54-144	<input type="checkbox"/>
Chlorobenzene	25	29	116	53-146	<input type="checkbox"/>

QA/QC Report
for Inorganics
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reference #: GTI AZ6382

Analyte	Date Extracted	Date Analyzed	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Cyanide, Total	5/4/2010	5/4/2010	AZ6377-019	0.19	0.15	0.289	0.277	86	58	4	56-136	14	--

Laboratory Control Sample

Analyte	Date Extracted	Date Analyzed	QC Sample	SP CONC	Results	% LCS	ACP %	Qual
Cyanide, Total	5/4/2010	5/4/2010	IR0504101	0.15	0.148	99	90-110	---

Definition of terms:

R1	Results Of Laboratory Sample Number
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
%MS	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
%MSD	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
LCS	Laboratory Control Sample Results
LCSD	Laboratory Control Sample Duplicate Results
%LCS	Percent Recovery Of LCS: $\{(LCS-R1) / SP\} \times 100$
%LCSD	Percent Recovery Of LCSD: $\{(LCSD-R1) / SP\} \times 100$
RPD (for LCS/LCSD)	Relative Percent Difference: $\{(LCS-LCSD) / (LCS+LCSD)\} \times 100 \times 2$
ACP %MS(MSD)	Acceptable Range of Percent
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was required for this analyte; see attached explanation.
ND	Analyte Not Detected



APPENDIX H

Groundwater Sampling Field Data Sheets



Project No:
Site Name:
Date:

1303.036.02

20th & Factor

4/26/10

Task No:

Technicians

Well ID	Time	Depth to Water (Feet)		Depth to Bottom of Casing (Feet)	Measuring Point	Comments
		Previous	Current			
MW-25A	0959		80.63	94.91	NTOC	
MW-25B	1013		80.94	167.14	NTOC	
MW-15A	1031		80.72		NTOC	
MW-16A	1054		78.61		NTOC	
MW-13A	1103		80.28		NTOC	
MW-23B	1120		76.52		NTOC	
MW-17C	1120	78.31	78.32		NTOC	
MW-17A	1131		78.52		NTOC	
MW-9A	1142		76.11		NTOC	
MW-101A	1152		75.20		NTOC	
MW-24B	1145		80.76		NTOC	
MW-8C	1150		75.72		NTOC	
MW-21A	1203		81.27		NTOC	
MW-21B	1203		81.27		NTOC	
MW-21C	1207		81.80		NTOC	
MW-12A	1218		74.68		NTOC	
MW-18A	1227		79.77		NTOC	
MW-8B	1213		75.62		NTOC	
MW-8A	1235		75.19		NTOC	
MW-103C	1223		76.90		NTOC	
MW-102B1	1235		76.70		NTOC	
DMW-11	1305		71.00		NTOC	



GROUNDWATER SAMPLING FORM

MW25A-04260

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by: J. G. Lock
Sampled by: B. Baden

Well ID: MW-25A
Date: 4/26/10
Sample ID: MW-25A-04260
Time: 1800
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs): 95.0
Water level depth (WL in ft bgs): 80.63
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen interval: 65 - 95
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)
(95 - 80.63) X 16 X 3 X 0.0408 =

28.1

Gallons

Purge time Purge Rate Totalizer
1737 Start Initial gpm 5.20 gpm Initial 185327.3
1758 Stop Final gpm 4.30 gpm Final 185336.5
Elapsed Average gpm

ACTUAL PURGE VOLUME

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1740	32.11	4.81	5.41	6.97	3.42	202	179	
1743	32.16	3.48	5.45	7.05	3.44	195	80.5	
1749	32.18	3.32	5.41	7.06	3.41	194	41.4	
1747	32.28	6.02	5.49	7.10	3.45	202	166	Turbidity is jumping
1753	32.30	4.60	5.51	7.16	3.47	194	109	up but water is
1755	32.32	5.41	5.56	7.14	3.50	195	196	clear. will recalibrate

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: T. Glock

Sampled by: T. Glock

Well ID: MW-25B

Sample ID: MW-25B - 042710

Date: 4/27/10

Time: 0856

Well Type: Monitoring

Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4

Total depth of casing (TD in ft bgs): 167.14

Water level depth (WL in ft bgs): 80.99

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2'

Screen Interval: 140-170

Pump depth: 90'

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{\text{Casing Diameter (Inches)}}{4} \right) \times 16 \times 3 \times 0.0408 = \frac{\text{Total Depth of Casing (TD)}}{\text{Water Level Depth (WL)}} \times \text{D}^2 \times \text{\# of Well Volumes} \times 0.0408 =$$

168.8
Gallons

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

0738	Start	Initial gpm	5.0	Initial	1853369.6
0840	Stop	Final gpm		Final	1853687.1
	Elapsed	Average gpm			1853533.4

323

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
0743	32.59	0.94	5.57	5.79	3.51	203	0.0	
0748	32.97	0.81	5.22	5.92	3.29	184	0.0	Drawing in rocks
0753	33.10	0.62	5.15	5.99	3.24	167	280	of high sediment
0800	33.19	0.00	5.21	5.93	3.28	201	187	turbid water
0810	33.18	8.53*	5.20	5.04	3.28	225	105	intermittently
0820	33.23	8.73	5.20	4.22	3.28	264	52.4	* disconnected positive
0830	33.26	8.06	5.17	3.93	3.28	276	47.8	clean.
0840	33.27	6.86	5.14	3.78	3.24	280	10.8	
Observations (Odor, color, etc.):								
IDW Storage Type: Baker Tank								

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: TG/BB

Sampled by: TG/BB

Well ID: MW-15A

Date: 4/29/10

Sample ID: MW-15A-042910

Time: 0837

Well Type: Monitoring

Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4

Total depth of casing (TD in ft bgs): 90.7 Feigned bottom

Water level depth (WL in ft bgs): 80.72

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"

Screen Interval: 66 - 96

Pump depth: 83

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{\text{TD} - \text{WL}}{\text{D}^2} \right) \times 16 \times \text{\# of Well Volumes} \times 0.0408 =$$

19.5 Gallons

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

0822 Start Initial gpm 4 Initial 185599.5
0830 Stop Final gpm Final 185602.3
Elapsed Average gpm

24.4

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
0824	27.53	4.58	2.93	8.38	1.84	40	>800	
0825	28.22	5.27	2.87	8.40	1.84	45	>800	
0826	28.80	6.65	3.05	8.28	1.95	45	47.5	
0827	28.90	4.25	3.06	8.30	1.96	44	265	
0828	29.08	4.09	3.06	8.31	1.96	45	162	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time

GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
 Job #: 1303.036.02
 Location: Yuma, Arizona
 Recorded by:
 Sampled by:

Well ID: MW-16A
 Date: 4/27/10
 Sample ID: MW-16A-042710
 Time: 1021
 Well Type: Monitoring
 Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
 Total depth of casing (TD in ft bgs): 95
 Water level depth (WL in ft bgs): 78.61
 Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
 Screen interval: 64.5 - 104.5
 Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{\text{TD} - \text{WL}}{\text{D}^2} \right) \times 16 \times 3 \times 0.0408 =$$

32

Gallons

Purge time	Purge Rate	Totalizer
1007 Start	Initial gpm 5.8	Initial 1853687.3
1010 Stop	Final gpm	Final 1853732.1
Elapsed	Average gpm	

ACTUAL PURGE VOLUME

45

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1004	28.35	9.26	3.17	8.92	2.02	136	185	
1005	28.15	8.09	3.07	8.73	1.95	152	141	
1006	28.09	7.11	3.02	8.67	1.93	157	97.0	
1007	28.07	6.44	2.99	8.57	1.92	162	71.0	
1008	28.05	5.97	2.96	8.49	1.90	167	45.1	
1010	28.05	5.79	2.94	8.45	1.88	171	42.2	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: J-G

Sampled by: J-G

Well ID: MW-13A

Date: 4/27/10

Sample ID: MW-13A-042710

Time: 1125

Well Type: Monitoring

Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4

Total depth of casing (TD in ft bgs): 105

Water level depth (WL in ft bgs): 80.28

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"

Screen Interval: 62 - 102

Pump depth: 90

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{\text{TD} - \text{WL}}{D^2} \right) \times 16 \times \text{X} \times 3 \times 0.0408 =$$

(TD - WL) $\frac{\text{ft}}{\text{ft}^2}$ # of Well Volumes

48.9
Gallons

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

Purge time	Purge Rate	Totalizer
1103 Start	Initial gpm 5.4	Initial 1853733.3
1117 Stop	Final gpm	Final
Elapsed	Average gpm	

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1105	30.16	7.81	2.37	8.30	1.51	171	12.7	
1107	30.15	6.92	2.37	8.33	1.52	174	57.04	
1109	30.17	6.44	2.42	8.35	1.55	174	83.5	
1111	30.18	6.16	2.45	8.39	1.57	174	64.5	
1113	30.25	5.92	2.46	8.44	1.58	175	27.5	
1115	30.21	5.82	2.47	8.49	1.58	175	15.7	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time

GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by: J. G.
Sampled by: B.B.

Well ID: MW-23B **Sample ID:** MW-23B-042710
Date: 4/27/10 **Time:** 1240
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs): 18.5
Water level depth (WL in ft bgs): 76.52
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen Interval: 120.5 - 160.5
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

() X 16 X 3 X 0.0408 =
 (TD - WL) D² # of Well Volumes

217
 Gallons

Purge time	Purge Rate	Totalizer
1147 Start	Initial gpm 5.2	Initial 1853808.0
1231 Stop	Final gpm	Final 1854077.7
Elapsed	Average gpm	

ACTUAL PURGE VOLUME

263.7

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1151	29.10	4.21	2.44	5.52	1.56	356	0.0	
1200	29.13	3.24	2.53	8.46	1.62	189	0.0	
1208	29.13	3.18	2.54	7.22	1.62	268	0.0	
1215	29.13	4.51	2.56	6.59	1.64	295	0.0	
1224	29.11	3.13	2.56	7.39	1.64	252	0.0	
1231	29.11	3.06	2.56	7.25	1.64	259	0.0	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by:
Sampled by:

Well ID: MW-17C Sample ID: MW-17C-042
Date: 4/27/10 Time: 1420
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs): 261
Water level depth (WL in ft bgs): 78.31
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen Interval: 167-207
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.153 gal/ft 4" = 0.652 gal/ft)

(TD - WL) X 16 X 3 X 0.0408 =

252
Gallons

Purge time	Purge Rate	Totalizer
1318 Start	Initial gpm 5.1	Initial 1854072.0
1408 Stop	Final gpm 6.1	Final 1854324.0
Elapsed	Average gpm	324

ACTUAL PURGE VOLUME

252

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1322	31.45	2.98	3.05	7.57	1.95	192	0.0	
1332	33.06	0.60	3.06	7.15	1.96	83	0.0	
1342	33.34	0.39	3.66	6.92	1.96	46	10.8	
1352	33.33	0.35	3.07	7.31	1.96	10	3.3	
1402	33.34	0.25	3.06	7.17	1.96	13	0.0	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by:
Sampled by:

Well ID: MW-17A Sample ID: MW-17A-042710
Date: 9/27/10 Time: 1450
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs): 98
Water level depth (WL in ft bgs): 78.52
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen Interval: 66 - 96
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

(TD - WL) X 16 X 3 X 0.0408 =

38.1
Gallons

Purge time	Purge Rate	Totalizer
1432 Start	Initial gpm 5.1	Initial 1854316.4
1439 Stop	Final gpm	Final 1854369.5
Elapsed	Average gpm	

ACTUAL PURGE VOLUME

53.1

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1432	30.73	9.12	2.91	8.40	1.86	192	36.1	
1434	30.45	7.06	2.91	8.39	1.86	199	89.8	
1436	30.49	6.11	2.88	8.42	1.84	185	43.3	
1438	30.46	5.62	2.87	8.44	1.84	196	13.4	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: JG/BP

Sampled by: JG/BP

Well ID: MW-9A

Sample ID: MW-9A-047710

Date: 9/27/10

Time: 1540

Well Type: Monitoring

Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4

Total depth of casing (TD in ft bgs): 101.4

Water level depth (WL in ft bgs): 76.1

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"

Screen interval: 61.4 - 101.4

Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{\text{Casing Diameter (in)}}{12} \right)^2 \times 16 \times \left(\frac{\text{Total Depth (ft)}}{\text{Screen Interval (ft)}} \right) \times 0.0408 = \text{Gallons}$$

99.5 Gallons

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

Purge time	Purge Rate	Totalizer
1516 Start	Initial gpm 5.5	Initial 1854360.5
1530 Stop	Final gpm 5.6	Final 1854436.7
Elapsed	Average gpm	

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1520	29.80	5.83	3.99	7.87	2.55	217	7800	
1522	29.15	5.10	4.00	7.75	2.56	224	663	
1524	29.87	4.68	4.02	7.67	2.57	228	464	
1526	29.97	4.40	4.02	8.22	2.58	194	558	
1528	29.97	4.07	4.03	7.80	2.58	219	385	
1530	29.92	3.83	4.04	7.72	2.58	224	310	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: TG/BB

Sampled by: TG/BB

Well ID: MW-101A

Date: 4/27/0

Sample ID: MW-101A-042710

Time: 1610

Well Type: Monitoring

Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4

Total depth of casing (TD in ft bgs): 90

Water level depth (WL in ft bgs): 75.20

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"

Screen interval: 50 - 90

Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{\text{TD} - \text{WL}}{D^2} \right) \times 16 \times \text{X} \times 0.0408 = \text{Gallons}$$

(TD - WL) D² # of Well Volumes

29

Gallons

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

	Start	Initial gpm	Final gpm	Initial	Final
1558	Start	5.5		1854436.5	
1603	Stop			1854468.6	
5	Elapsed	Average gpm			

32.1

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1559	31.52	8.79	5.41	8.11	3.42	205	28.1	
1600	30.09	7.59	5.40	7.45	3.48	299	19.4	
1601	29.85	6.62	5.41	7.63	3.40	271	6.6	
1602	29.77	6.16	5.41	6.64	3.41	299	1.8	
1603	29.76	5.93	5.40	6.36	3.40	308	0.9	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20st & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by: TG/BR
Sampled by: TG/BR

Well ID: MW-24B
Date: 7/28/10
Sample ID: MW-24B-042011
Time: 1015
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs): 160.5
Water level depth (WL in ft bgs): 80.76
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen interval: 110.5-160.5
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

(-) X 16 X 3 X 0.0408 =
(TD - WL) D² # of Well Volumes

156.2
Gallons

Purge time	Purge Rate	Totalizer
0930 Start	Initial gpm 5.4	Initial 1854783.8
1000 Stop	Final gpm 5.4	Final 1854945.7
Elapsed	Average gpm	939.0

ACTUAL PURGE VOLUME

161.9

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
0935	31.00	2.62	3.85	8.39	2.44	206	0.0	
0941	31.23	1.05	3.89	8.40	2.49	202	0.0	
0947	31.35	0.86	4.01	8.41	2.57	185	0.0	
0953	31.32	0.81	4.03	8.44	2.58	183	0.0	
0959	31.26	0.77	4.03	8.47	2.58	182	0.0	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: TG/RB

Sampled by: TG/RB

Well ID: MW-8C

Sample ID: MW-8C-042810

Date: 4/28/10

Time: 0902

Well Type: Monitoring

Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4

Total depth of casing (TD in ft bgs): 225

Water level depth (WL in ft bgs): 75.72

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"

Screen Interval: 170 - 210

Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{\text{TD} - \text{WL}}{\text{D}^2} \right) \times 16 \times 3 \times 0.0408 =$$

292

Gallons

Purge time

Purge Rate

Totalizer

	Start	Initial gpm	Final gpm	Initial	Final
0756	0853	5.3		1854478.4	1854782.6
	Elapsed	Average gpm			

ACTUAL PURGE VOLUME

304.2

570.4

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
0806	31.75	3.49	3.48	7.90	2.22	146	0.0	
0816	32.63	1.08	3.48	8.06	2.23	-1	0.0	
0826	32.68	0.41	3.55	8.13	2.27	-26	0.4	
0836	32.71	0.76	3.59	8.16	2.29	-35	0.0	
0846	32.81	0.30	3.60	8.18	2.31	-44	0.0	
0853	32.84	0.28	3.62	8.19	2.31	-48	0.0	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3'

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: TG/BK

Sampled by: TG/BK

Well ID: MW-21A

Sample ID: MW-21A-042810

Date: 4/28/10

Time: 1050

Well Type: Monitoring

Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4

Total depth of casing (TD in ft bgs): 99

Water level depth (WL in ft bgs): 81.27

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"

Screen interval: 69 - 99

Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{99 - 81.27}{16} \right) \times \frac{3}{D^2} \times 0.0408 = 34 \text{ Gallons}$$

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

	Start	Initial gpm	Initial
1048	1048	5.1	1854945.7
1051	1051		1854981.9
	Elapsed	Average gpm	

36.2

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1046	28.66	9.91	2.99	8.04	1.90	2.97	46.6	
1047	29.14	7.16	2.92	7.83	1.86	2.97	12.2	
1048	29.45	6.78	2.85	7.78	1.82	2.00	8.2	
1049	29.55	5.70	2.85	7.71	1.82	2.04	9.6	
1050	29.62	5.48	2.85	7.68	1.82	2.07	0.0	
1051	29.64	5.41	2.83	7.66	1.81	2.10	0.0	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by: TG/BB
Sampled by: TG/BB

Well ID: MW-21B
Date: 4/28/10
Sample ID: MW-21B-042010
Time: 1200
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs): 205
Water level depth (WL in ft bgs): 81.27
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen interval: 161 - 201
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)
(205 - 81.27) X 16 X 3 X 0.0408 = 292 Gallons
(TD - WL) D² # of Well Volumes

Purge time	Purge Rate	Totalizer
10:00 Start	Initial gpm 5.3	Initial 1854901.9
10:54 Stop	Final gpm 3.3	Final 1855224.8
Elapsed	Average gpm	1855223.9

ACTUAL PURGE VOLUME

243

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
10:10	29.22	4.52	4.17	8.06	269	202	0.0	
11:20	30.77	1.07	4.31	7.79	276	137	0.0	
11:30	30.99	0.75	4.32	7.55	276	182	0.0	
11:40	30.94	0.72	4.38	7.20	2.80	163	0.0	
11:50	30.96	0.69	4.33	7.19	2.77	151	0.0	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by: TG/BAB
Sampled by: TG/BAB

Well ID: MW-21C Sample ID: MW-21C- 042810
Date: 4/28/10 Time: 1417
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME
Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs): 325
Water level depth (WL in ft bgs): 81.10
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen interval: 275 - 315
Pump depth: 95'

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)
$$\frac{(325 - 81.10) \times 16 \times 3 \times 0.0408}{\text{(TD) - (WL) D}^2 \text{ \# of Well Volumes}} =$$

477
Gallons

Purge time

Purge Rate

Totalizer

1232 Start Initial gpm 5.3 Initial 1855224.7
1407 Stop Final gpm Final 1855755.7
Elapsed Average gpm

ACTUAL PURGE VOLUME

531

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1235	30.19	0.70	3.84	6.31	2.46	-61	0.0	
1249	30.19	0.36	3.78	6.02	2.42	-152	0.0	
1308	33.22	0.48	3.93	6.11	2.51	-172	0.0	
1327	33.34	0.20	3.80	6.31	2.43	-205	0.0	
1346	33.35	0.33	3.74	6.18	2.39	-202	0.0	
1358	33.35	0.14	3.66	6.70	2.34	-226	0.0	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: TG/BTB

Sampled by: TG/BTB

Well ID: MW-12A

Sample ID: MW-12A-042810

Date: 4/28/10

Time: 15:15

Well Type: Monitoring

Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4

Total depth of casing (TD in ft bgs): 106.75

Water level depth (WL in ft bgs): 74.68

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"

Screen interval: 64.75 - 104.75

Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{\text{TD} - \text{WL}}{\text{D}^2} \right) \times 16 \times \text{X} \times 3 \times 0.0408 =$$

(TD - WL) D² # of Well Volumes

61

Gallons

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

1454	Start	Initial gpm	4.5	Initial	1855753.1
1507	Stop	Final gpm	4.8	Final	1855815.2
	Elapsed	Average gpm			214.1

62

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1456	30.56	3.24	3.24	8.95	2.00	-38	161	
1458	30.04	2.97	2.33	8.80	1.48	-109	122	
1500	30.65	3.10	2.30	8.68	1.48	-163	88.8	
1502	30.05	3.03	2.30	8.49	1.47	-144	56.4	
1504	30.05	2.99	2.30	8.55	1.47	-202	26.5	
1507	30.03	2.93	2.30	8.39	1.47	-193	10.6	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by: BB/TG
Sampled by: BB/TG

Well ID: MW-18A
Date: 10/04/28/10
Sample ID: MW-18A-042810
Time: 1552
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs): 107
Water level depth (WL in ft bgs): 79.71
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen interval: 65.5 - 105.5
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

(-) X 16 X 3 X 0.0408 =
(TD - WL) D² # of Well Volumes

53.3
Gallons

Purge time

Purge Rate

Totalizer

1535 Start Initial gpm 5.6 Initial 1855815.0
1546 Stop Final gpm Final 1855879.5
Elapsed Average gpm

ACTUAL PURGE VOLUME

169.5

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1537	30.86	9.73	2.51	8.64	1.62	-3	114	
1539	30.57	7.45	2.66	8.57	1.71	22	41.2	
1541	30.62	6.50	2.69	8.55	1.72	35	21.8	
1543	30.65	5.91	2.71	8.54	1.73	44	140	
1545	30.63	5.61	2.72	8.53	1.74	50	130	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by: TG/BBB
Sampled by: TG/BBB

Well ID: MW-8B Sample ID: MW-8B-042810
Date: 4/28/10 Time: 1636
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs): 117
Water level depth (WL in ft bgs): 75.62
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen interval: 107 - 117
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

(TD - WL) X 16 X 3 X 0.0408 =

81. Gallons

Purge time

Purge Rate

Totalizer

1611 Start Initial gpm 5.5 Initial 1855869.7
1626 Stop Final gpm Final
Elapsed Average gpm

ACTUAL PURGE VOLUME

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1614	30.88	7.73	3.28	8.38	2.11	69	0.0	
1617	30.97	5.76	3.32	8.36	2.13	98	0.0	
1620	30.97	5.08	3.33	8.32	2.13	125	0.0	
1623	31.00	4.85	3.33	8.30	2.13	133	0.0	
1625	30.89	4.72	3.33	8.28	2.13	138	0.0	

Observations (Odor, color, etc.):

IDW Storage Type: 55-gallon Drums

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: JG/BIB

Sampled by: JG/BIB

Well ID: MW-8A

Sample ID: MW-8A-042810

Date: 04/23/10

Time: 1710

Well Type: Monitoring

Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4

Total depth of casing (TD in ft bgs): 105.4

Water level depth (WL in ft bgs): 75.19

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"

Screen interval: 65.4 - 105.4

Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{\text{TD} - \text{WL}}{\text{D}^2} \right) \times 16 \times \text{X} \times \frac{3}{\text{# of Well Volumes}} \times 0.0408 =$$

59

Gallons

Purge time

Purge Rate

Totalizer

	Start	Initial gpm	Final gpm	Initial	Final
1645	Start	5.4		1855951.0	
1700	Stop	2.0		1855999.5	
	Elapsed	Average gpm			

ACTUAL PURGE VOLUME

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
1647	30.64	8.23	2.61	8.38	1.67	88	60.8	
1649	30.65	9.57	2.54	8.37	1.63	85	381	
1651	30.83	7.83	2.56	8.37	1.64	109	344	
1653	31.27	7.08	2.55	8.44	1.63	114	120	
1655	31.30	6.96	2.55	8.62	1.63	112	102	

Observations (Odor, color, etc.): WELL RUNNING DRY

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by: TG/10/3
Sampled by: TG/10/3

Well ID: MW-103C
Date: 4/29/10
Sample ID: MW-103C-042910
Time: 0926
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 2
Total depth of casing (TD in ft bgs): 240
Water level depth (WL in ft bgs): 76.90
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
Screen Interval: 220 - 240
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.153 gal/ft 4" = 0.652 gal/ft)

(-) X 4 X 3 X 0.0408 =
(TD - WL) D² # of Well Volumes

79.8

Gallons

Purge time Purge Rate Totalizer
0902 Start Initial gpm 6.0 Initial 1856074.6
0916 Stop Final gpm Final 1856105.7
Elapsed Average gpm

ACTUAL PURGE VOLUME

104.4

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
0905	29.29	1.24	2.92	7.98	1.87	-203	2.4	
0907	30.35	0.76	2.93	8.18	1.88	-201	4.4	
0909	30.83	0.57	2.94	8.18	1.98	-193	43.8	
0911	30.94	0.45	2.94	8.17	1.88	-187	40.5	
0913	30.97	0.39	2.94	8.12	1.88	-182	133	
0915	30.99	0.35	2.95	8.1	1.89	-181	17.6	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time

GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
 Job #: 1303.036.02
 Location: Yuma, Arizona
 Recorded by: TG/BIB
 Sampled by: TG/BIB

Well ID: MW-102B1
 Date: 4/29/10
 Sample ID: MW-102B1-042910
 Time: 0951
 Well Type: Monitoring
 Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 2
 Total depth of casing (TD in ft bgs): 120
 Water level depth (WL in ft bgs): 76.70
 Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Pump 2"
 Screen Interval: 110 - 120
 Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

$$\left(\frac{TD - WL}{D^2} \right) \times 4 \times 3 \times 0.0408 = 21.1 \text{ Gallons}$$

Purge time	Purge Rate	Totalizer
0938 Start	Initial gpm 4	Initial 1856108.5
0441 Stop	Final gpm	Final 1856131.9
Elapsed	Average gpm	

ACTUAL PURGE VOLUME

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
0936	27.39	3.44	3.68	8.68	2.53	14	1.55	
0937	28.58	2.33	4.81	8.57	3.11	22	10.7	
0938	28.95	1.96	5.27	8.50	3.33	29	4.8	
0939	29.12	1.81	5.48	8.45	3.45	33	2.3	
0940	29.18	1.74	5.56	8.41	3.51	36	1.1	

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 3"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by:
Sampled by:

Well ID: DMW-11 Sample ID: DMW-11- 042610
Date: 4/26/10 Time: 1515
Well Type: Monitoring
Well Material: PVC

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches): 4
Total depth of casing (TD in ft bgs):
Water level depth (WL in ft bgs):
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Grab Sample
Screen Interval: 60 - 90
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

() X 16 X 3 X 0.0408 =
(TD - WL) D² # of Well Volumes

Gallons

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

Purge time	Purge Rate	Totalizer
Start	Initial gpm	Initial
Stop	Final gpm	Final
Elapsed	Average gpm	

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes
								Grab Sample

Observations (Odor, color, etc.):

IDW Storage Type: Baker Tank

WELL SAMPLING

SAMPLING METHOD

Bailer Type: Disposable Bailer 1"

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor

Job #: 1303.036.02

Location: Yuma, Arizona

Recorded by: BB

Sampled by:

Well ID: Alice Byrne

Sample ID: Alice - 093010

Date: 4/30/10

Time: 1450

Well Type: Production

Well Material:

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches):

Total depth of casing (TD in ft bgs):

Water level depth (WL in ft bgs):

Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Grab Sample

Screen Interval:

Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

() X () X 3 X 0.0408 =

(TD - WL) D² # of Well Volumes

Gallons

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

Start Initial gpm

Initial

Stop Final gpm

Final

Elapsed Average gpm

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes

Observations (Odor, color, etc.):

IDW Storage Type: Not Applicable

WELL SAMPLING

SAMPLING METHOD

Bailer Type:

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time



GROUNDWATER SAMPLING FORM

Job Name: 20th & Factor
Job #: 1303.036.02
Location: Yuma, Arizona
Recorded by:
Sampled by: BB

Well ID: St. Francis
Date: 4/30/10
Sample ID: St. Francis - 043010
Time: 0930
Well Type: Production
Well Material:

WELL PURGING

PURGE VOLUME

Casing Diameter (Inches):
Total depth of casing (TD in ft bgs):
Water level depth (WL in ft bgs):
Number of well volumes to be purged: 3

PURGE METHOD

PUMP INTAKE SETTING

Purge Method: Grab Sample
Screen interval:
Pump depth:

PURGE VOLUME CALCULATION:

(note: 2" = 0.163 gal/ft 4" = 0.652 gal/ft)

(TD - WL) X D² X # of Well Volumes X 0.0408 =

Gallons

Purge time

Purge Rate

Totalizer

ACTUAL PURGE VOLUME

Start Initial gpm Initial
Stop Final gpm Final
Elapsed Average gpm

FIELD PARAMETER MEASUREMENT

Time (clock or elapsed)	T (°C or °F)	DO (% or mg/L)	Conductivity (ms/cm)	pH	TDS (mg/L)	ORP (mV)	Turbidity (NTU)	Notes

Observations (Odor, color, etc.):

IDW Storage Type: Not Applicable

WELL SAMPLING

SAMPLING METHOD

Bailer Type:

SAMPLING DISTRIBUTION

# Cont./Type	Analysis	Preservatives	Lab	Comments
2/40 mL VOA's	VOC's-8260B	HCl	Orange Coast	
1/1 L Amber	Cyanides-SM4500	NaOH	Orange Coast	

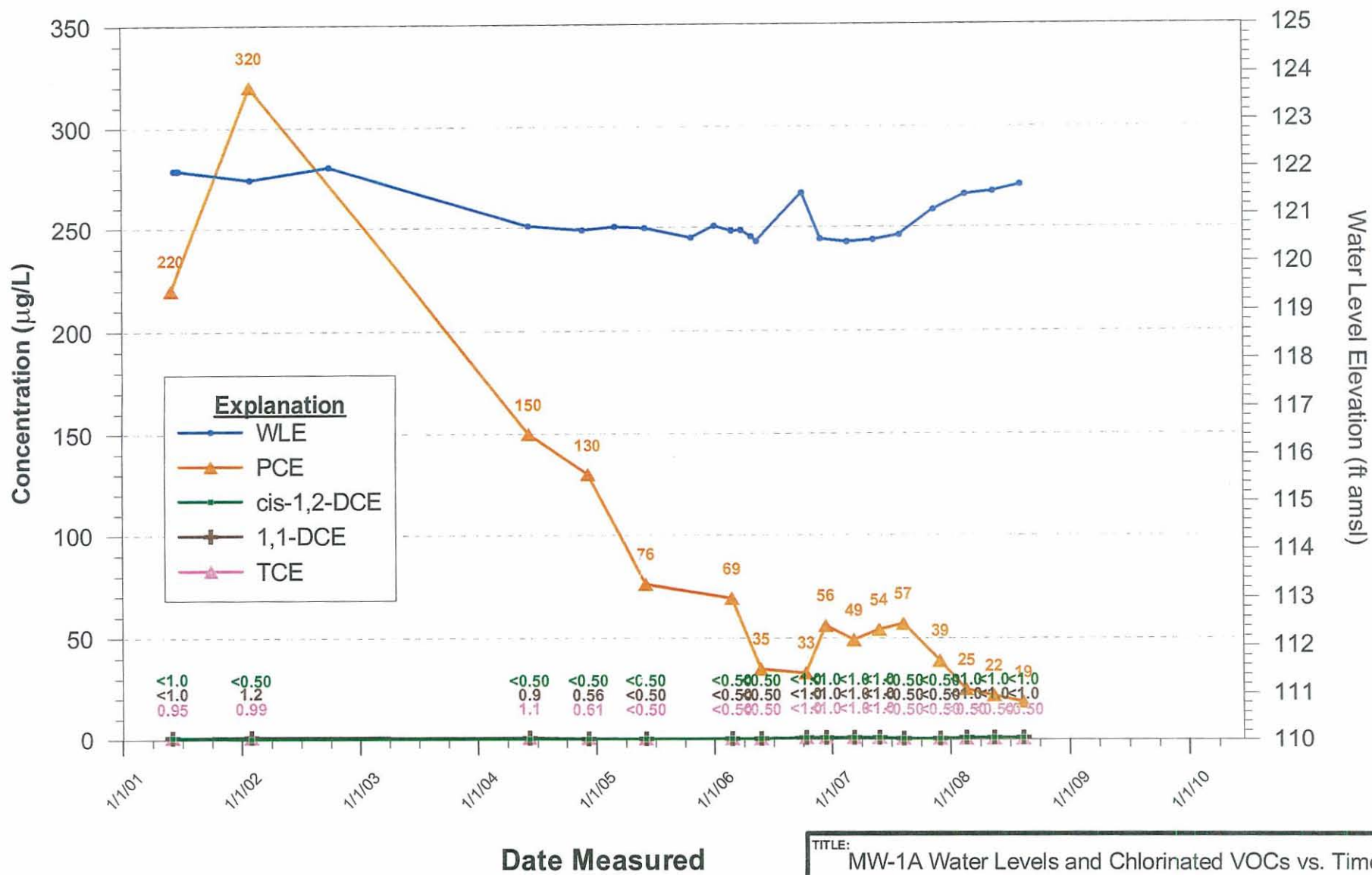
QC SAMPLES

Duplicates		
Original Sample #	Duplicate Sample #	"Blind" time

Blanks		
Type	Sample ID	Time

APPENDIX I

Groundwater Hydrographs



TITLE: MW-1A Water Levels and Chlorinated VOCs vs. Time

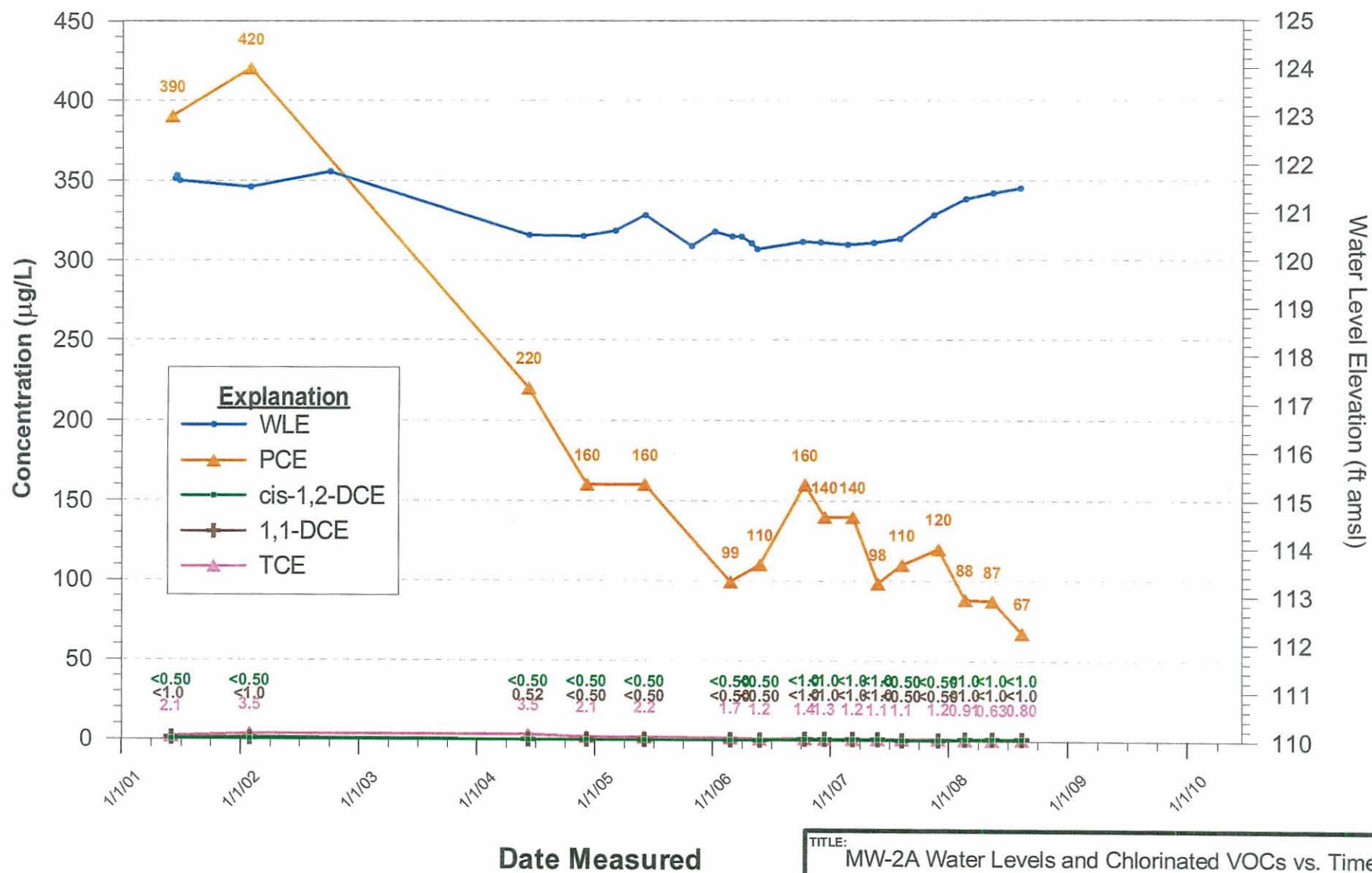
CLIENT: YUMA 20TH & FACTOR WQARF SITE




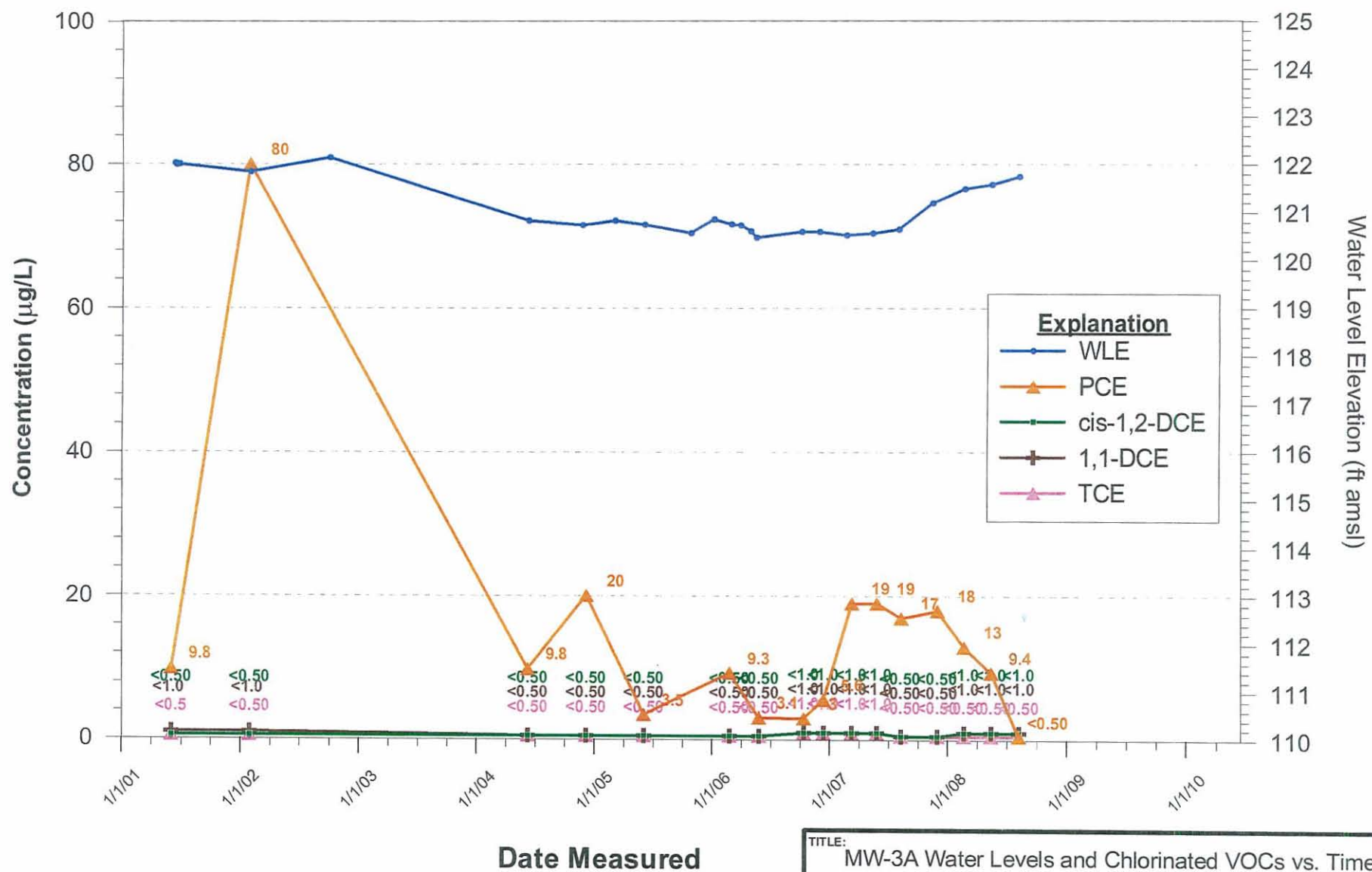
CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/15/10

FIGURE:

I-1



TITLE: MW-2A Water Levels and Chlorinated VOCs vs. Time		
CLIENT: YUMA 20TH & FACTOR WQARF SITE		
	CHECKED	JZ
	DRAFTED	MO
	PROJECT	1303.036
	DATE	06/15/10
FIGURE: I-2		



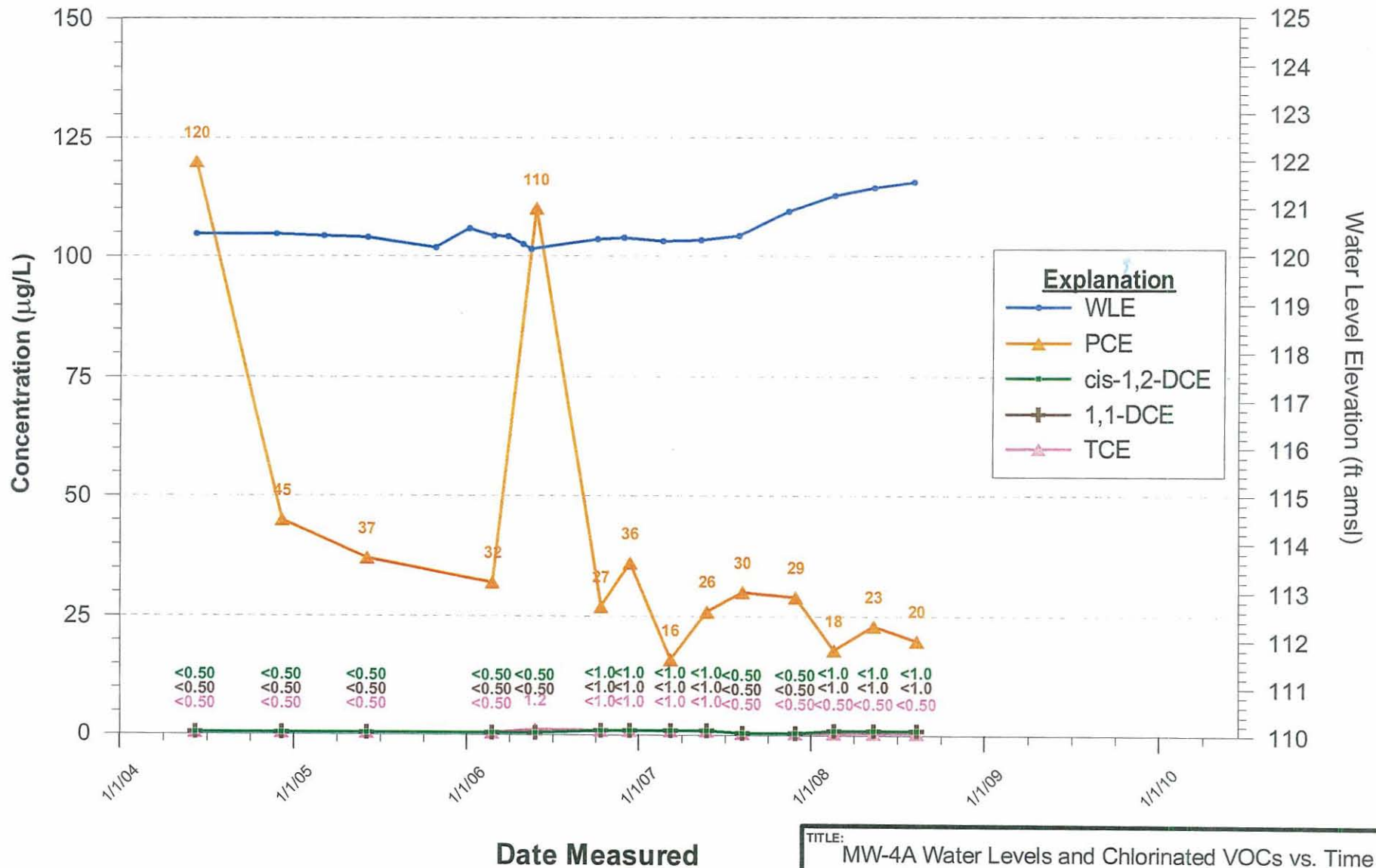
TITLE: MW-3A Water Levels and Chlorinated VOCs vs. Time


CLIENT: YUMA 20TH & FACTOR WQARF SITE

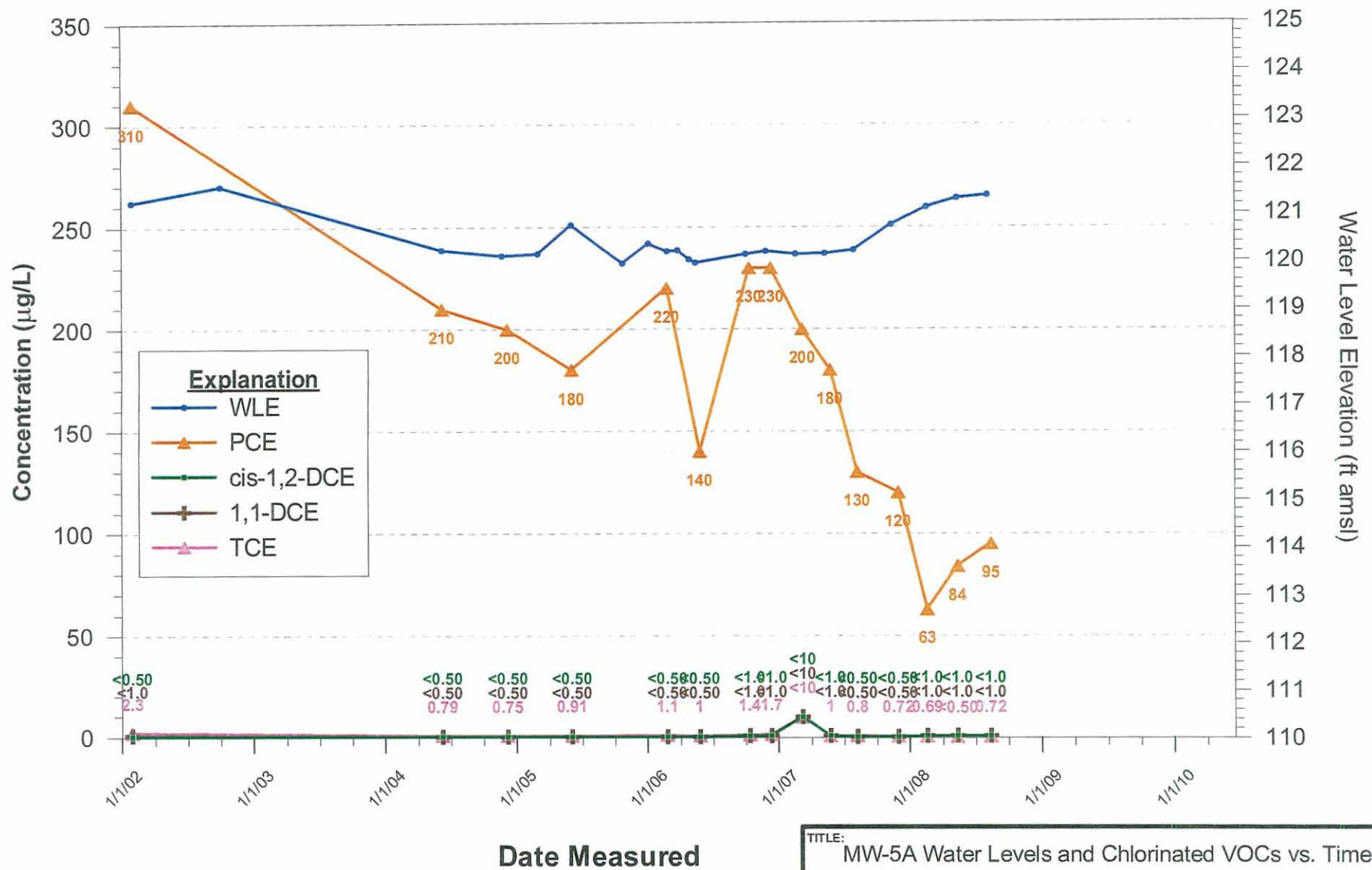
GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/15/10

FIGURE:
I-3



TITLE: MW-4A Water Levels and Chlorinated VOCs vs. Time		
CLIENT: YUMA 20TH & FACTOR WQARF SITE		
	CHECKED	JZ
	DRAFTED	MO
	PROJECT	1303.036
	DATE	06/15/10
FIGURE: I-4		



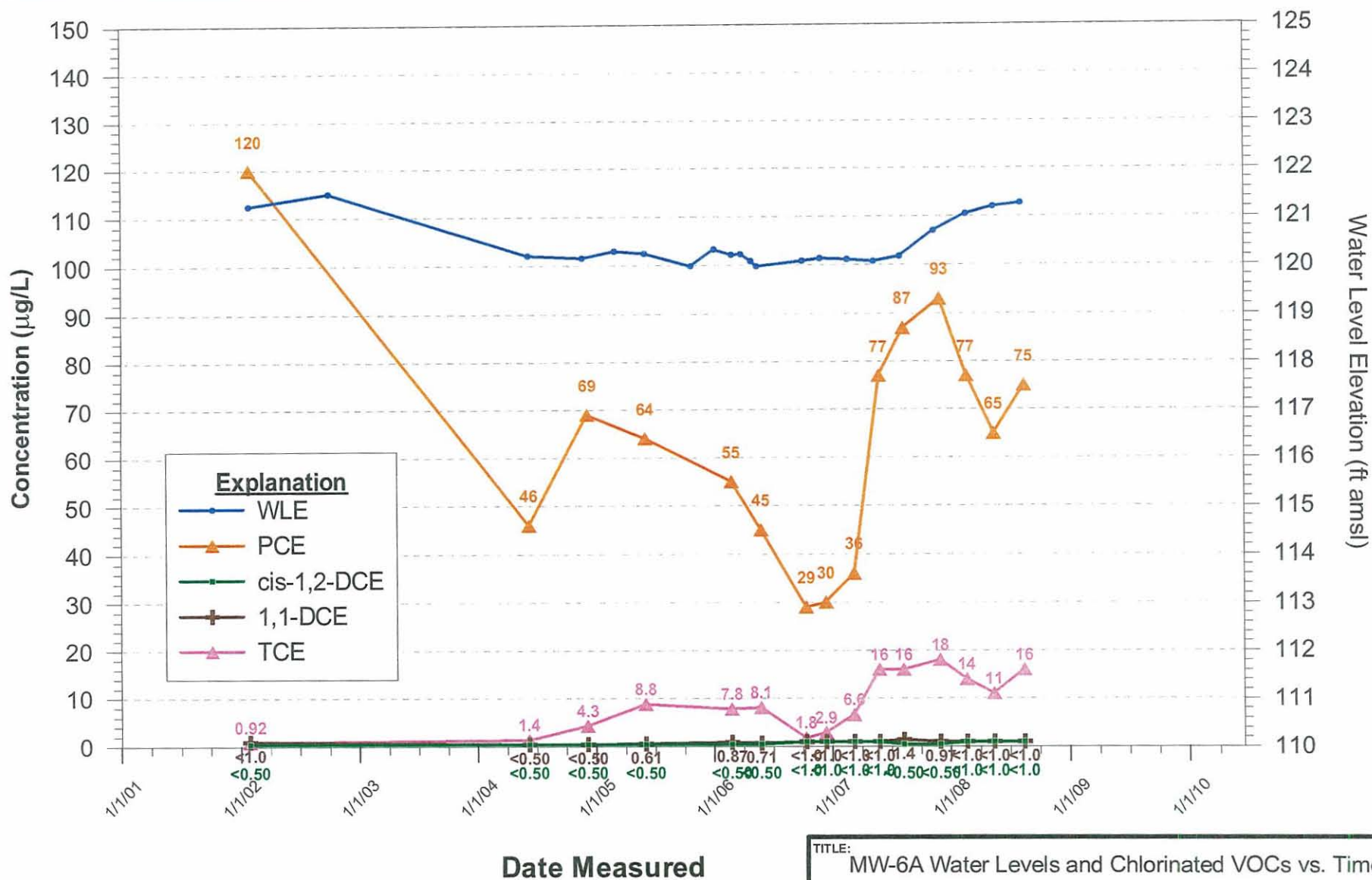
TITLE: MW-5A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/15/10

FIGURE:
I-5



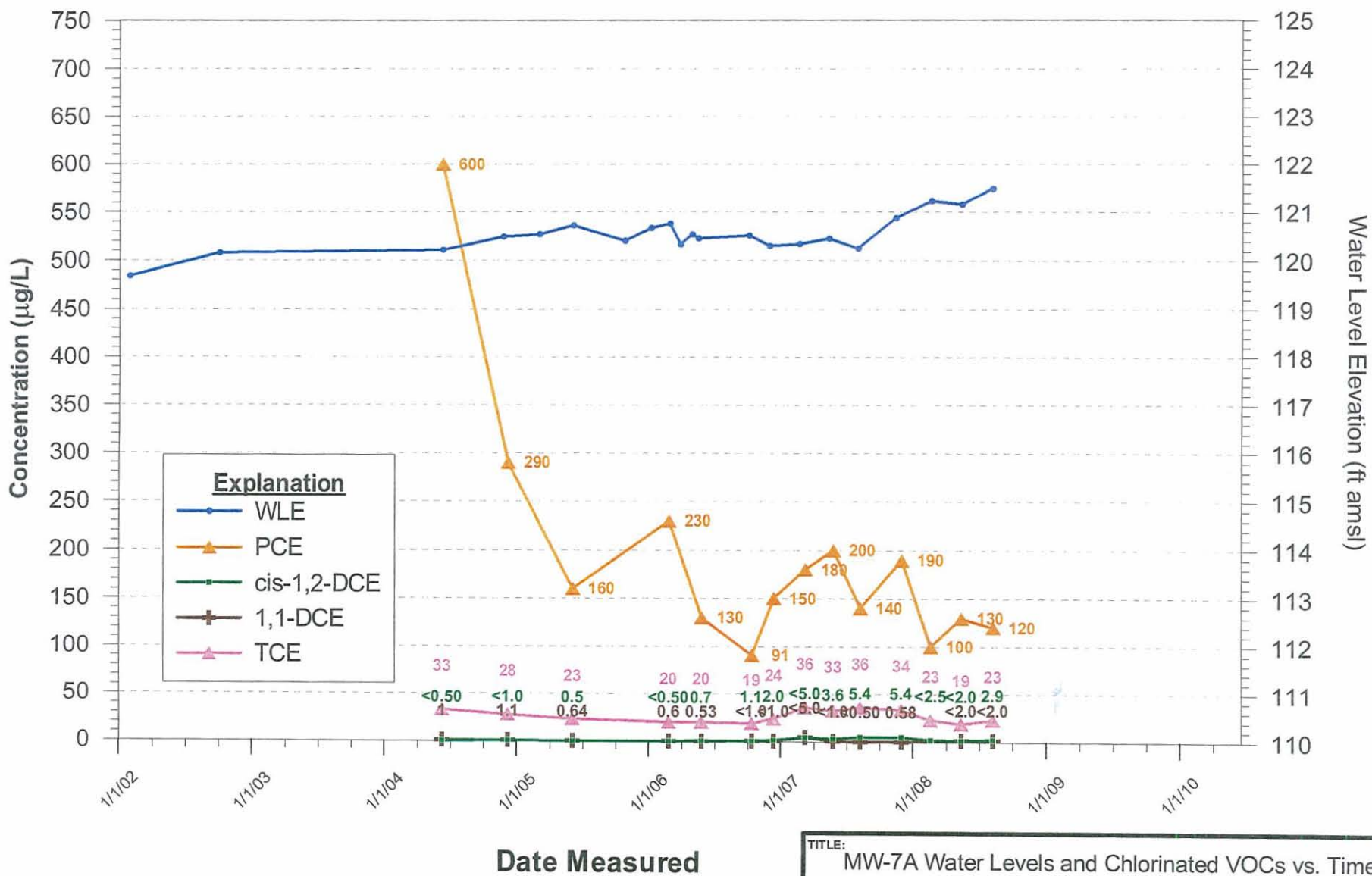
TITLE: MW-6A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/15/10

FIGURE:
I-6



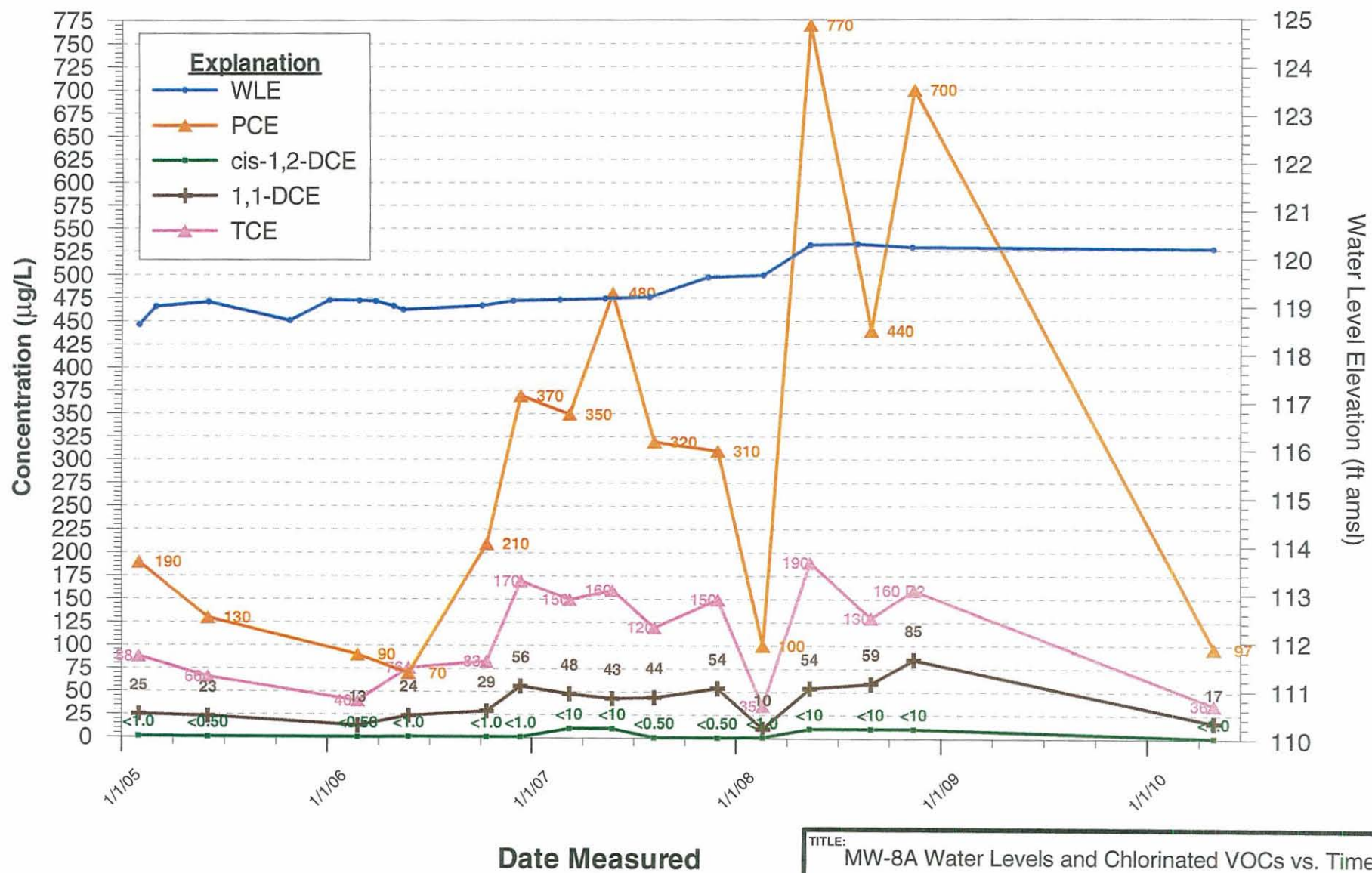
TITLE: MW-7A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/15/10

FIGURE:
I-7



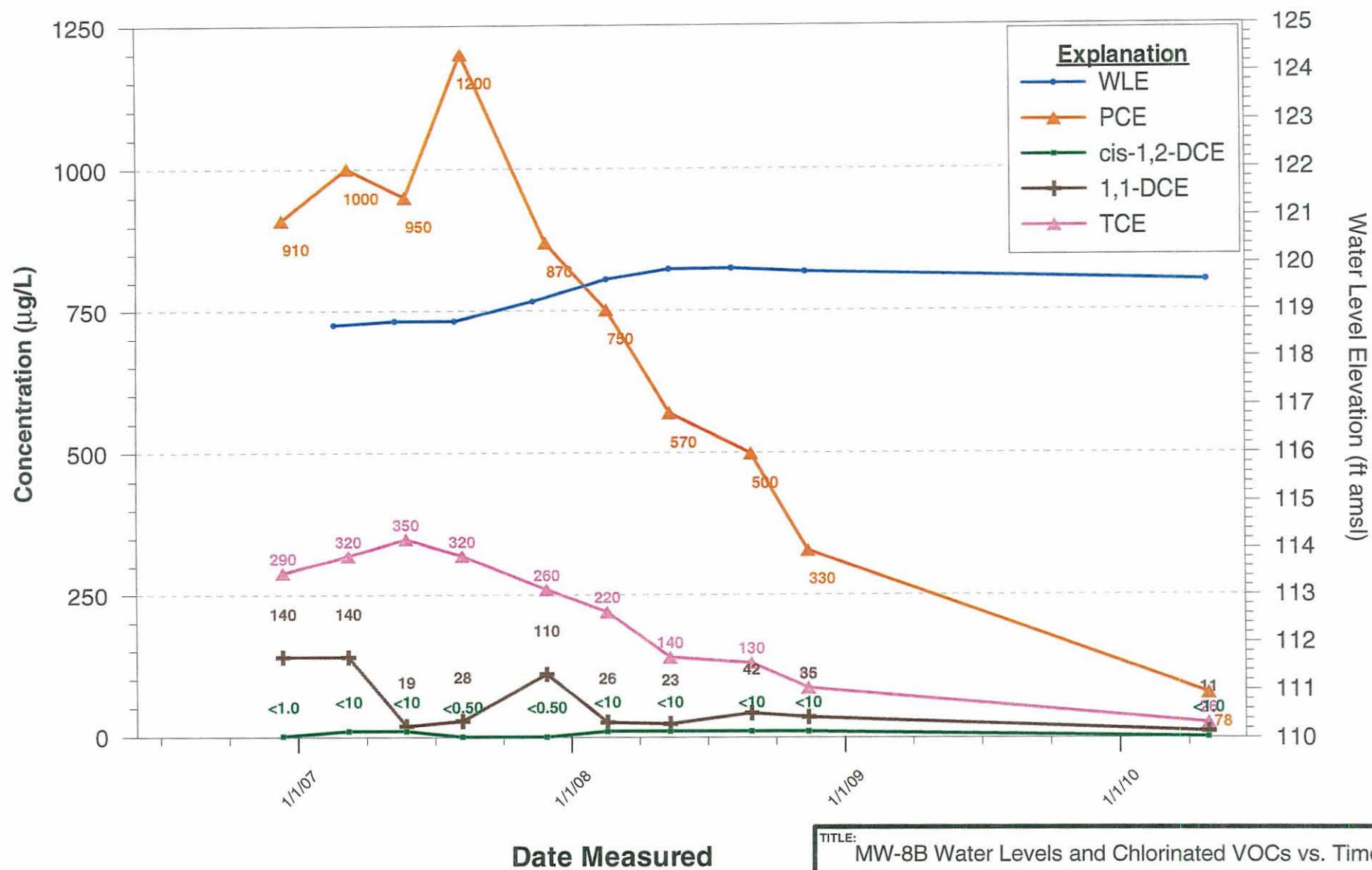
TITLE: MW-8A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/15/10

FIGURE:
I-8



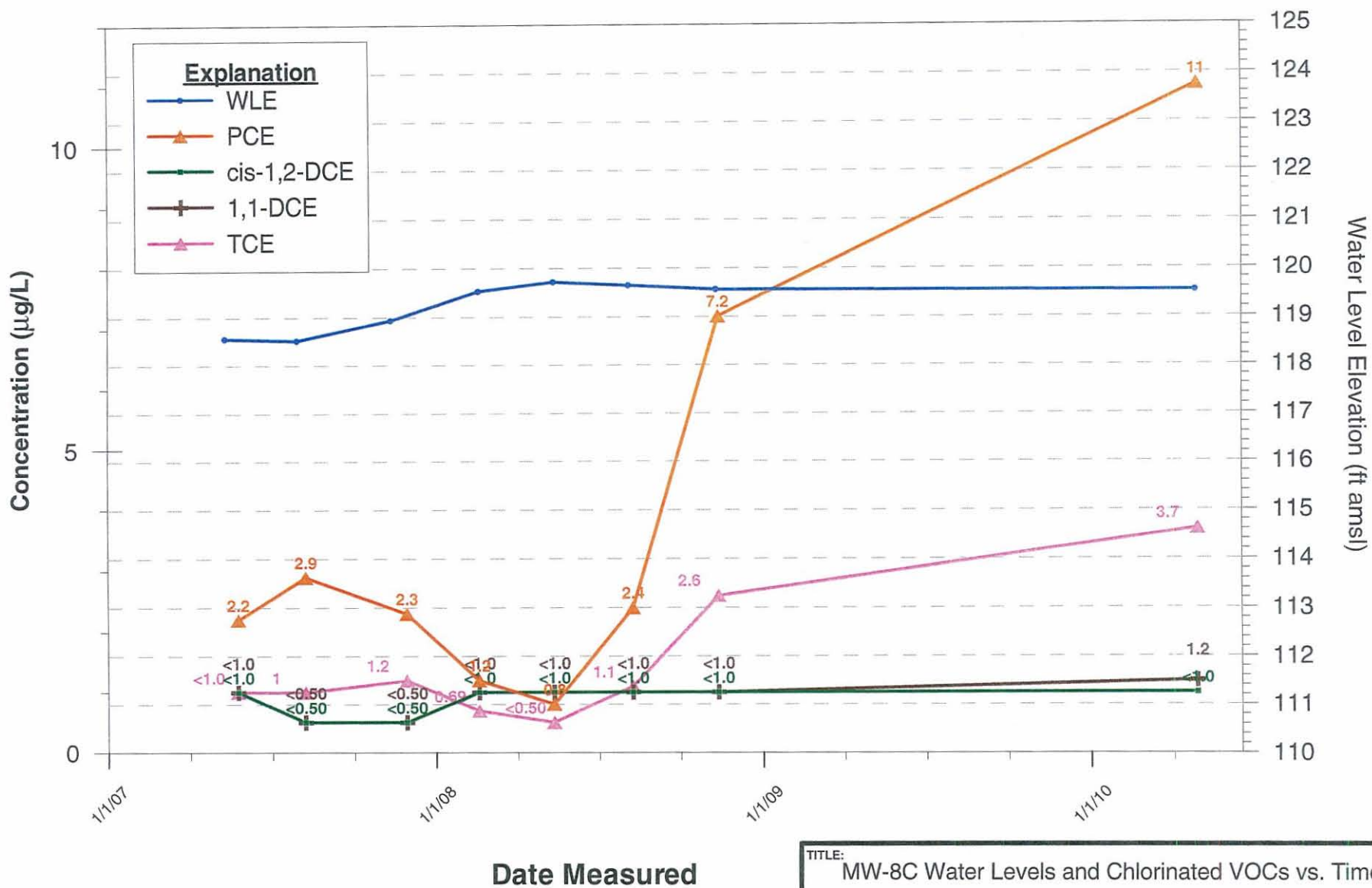
TITLE: MW-8B Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/15/10

FIGURE:
I-9



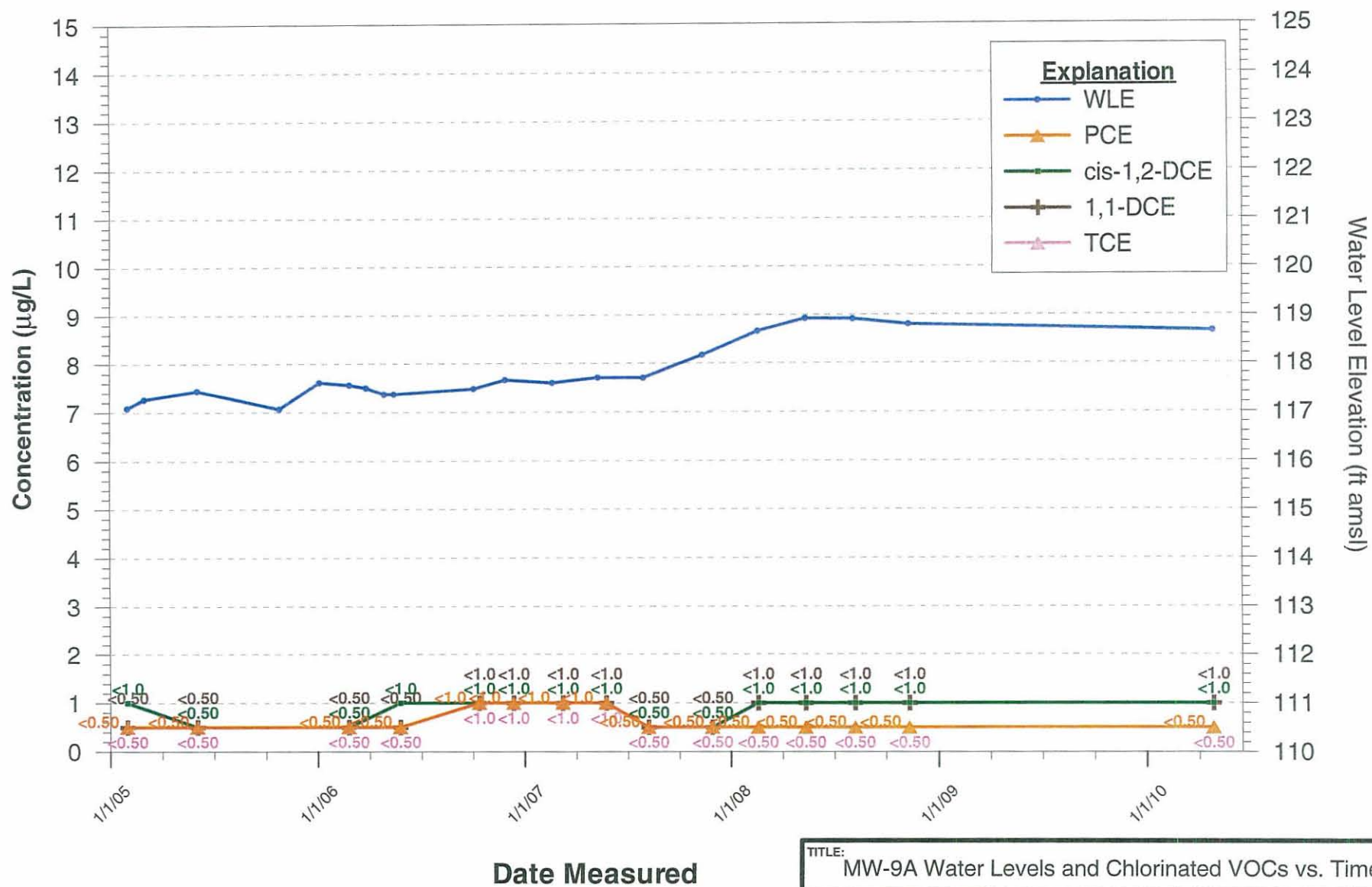
TITLE: MW-8C Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/15/10

FIGURE:
I-10



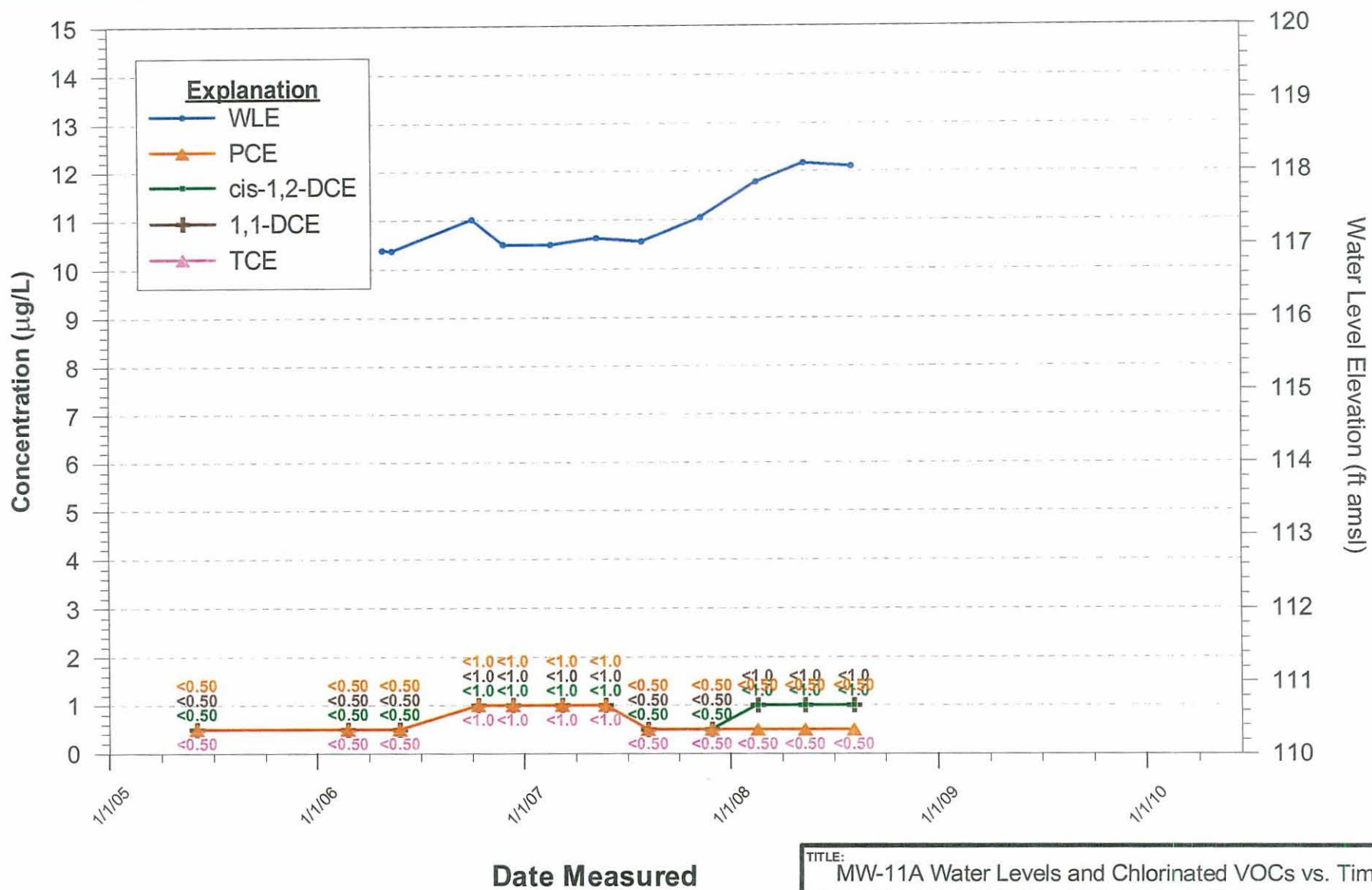
TITLE: MW-9A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-11



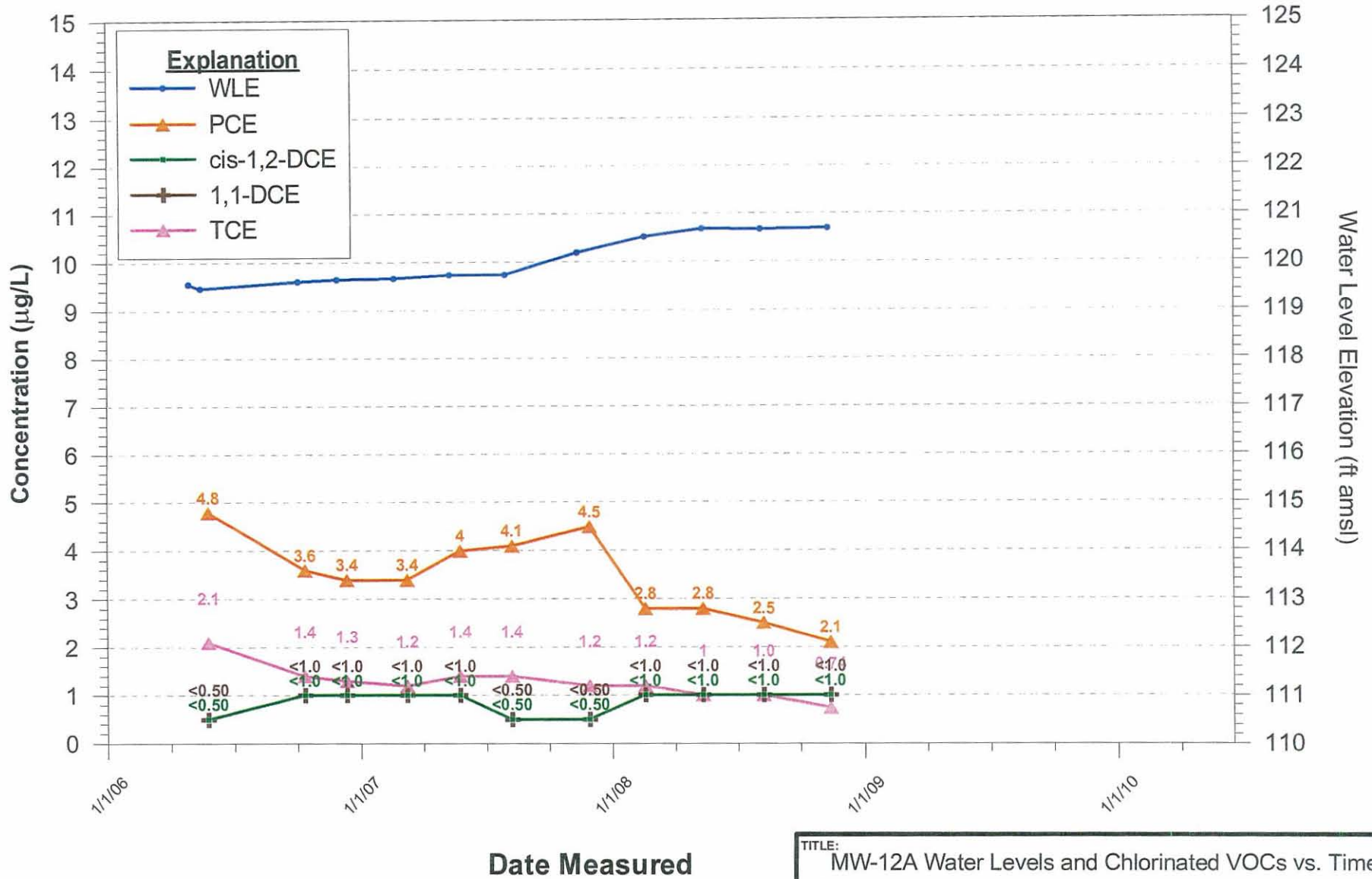
TITLE: MW-11A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-13



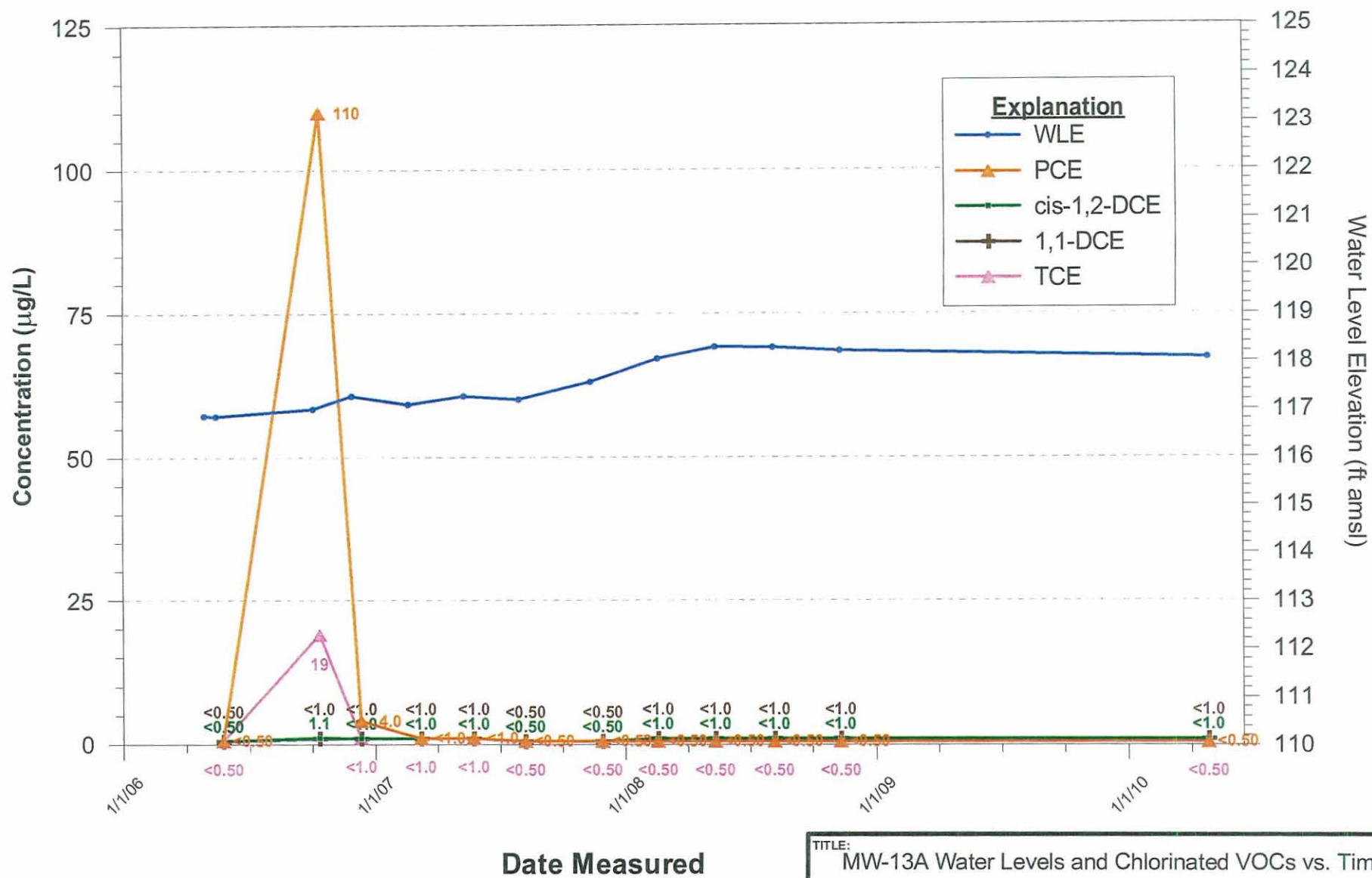
TITLE: MW-12A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-14



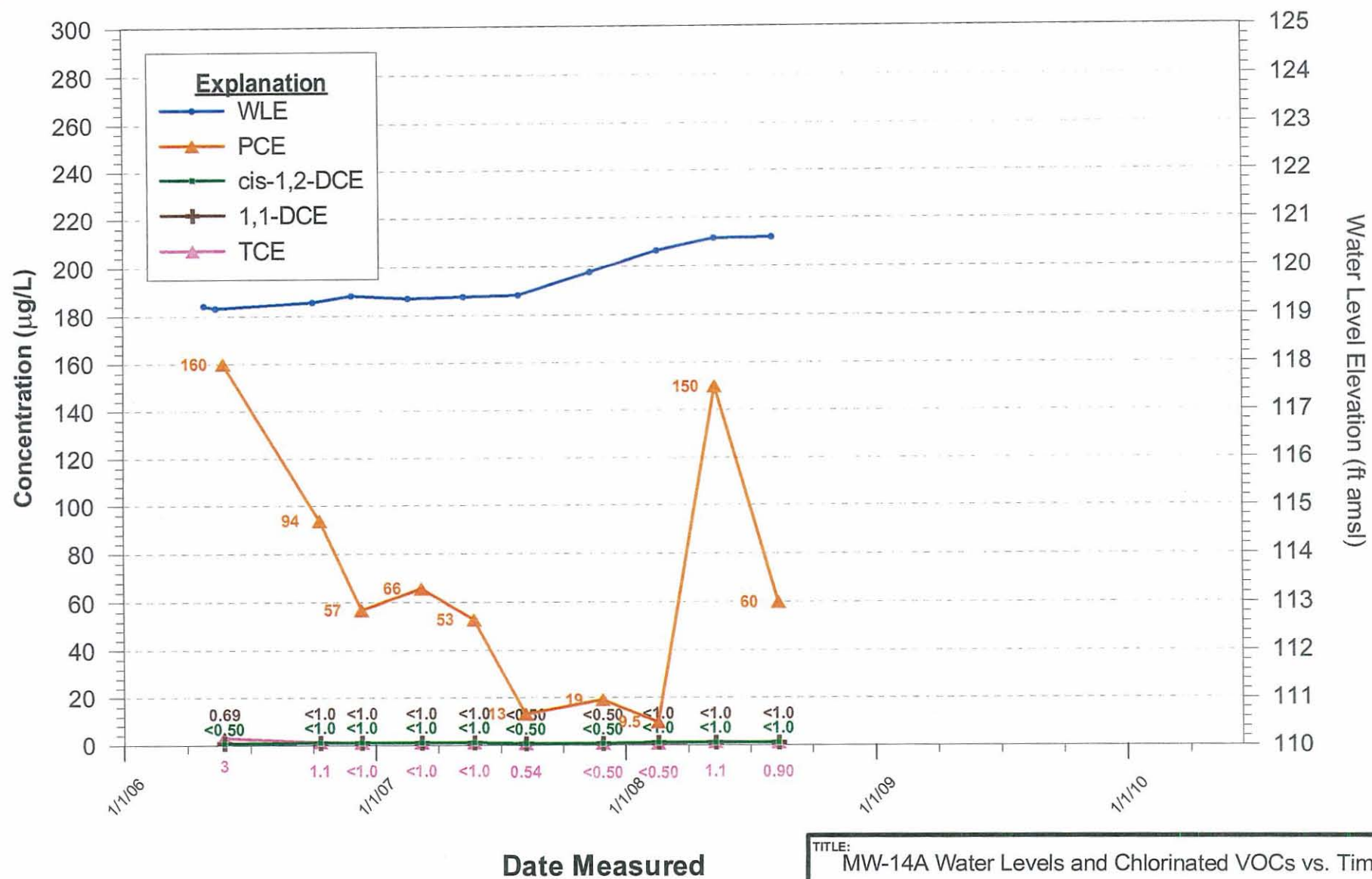
TITLE: MW-13A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-15



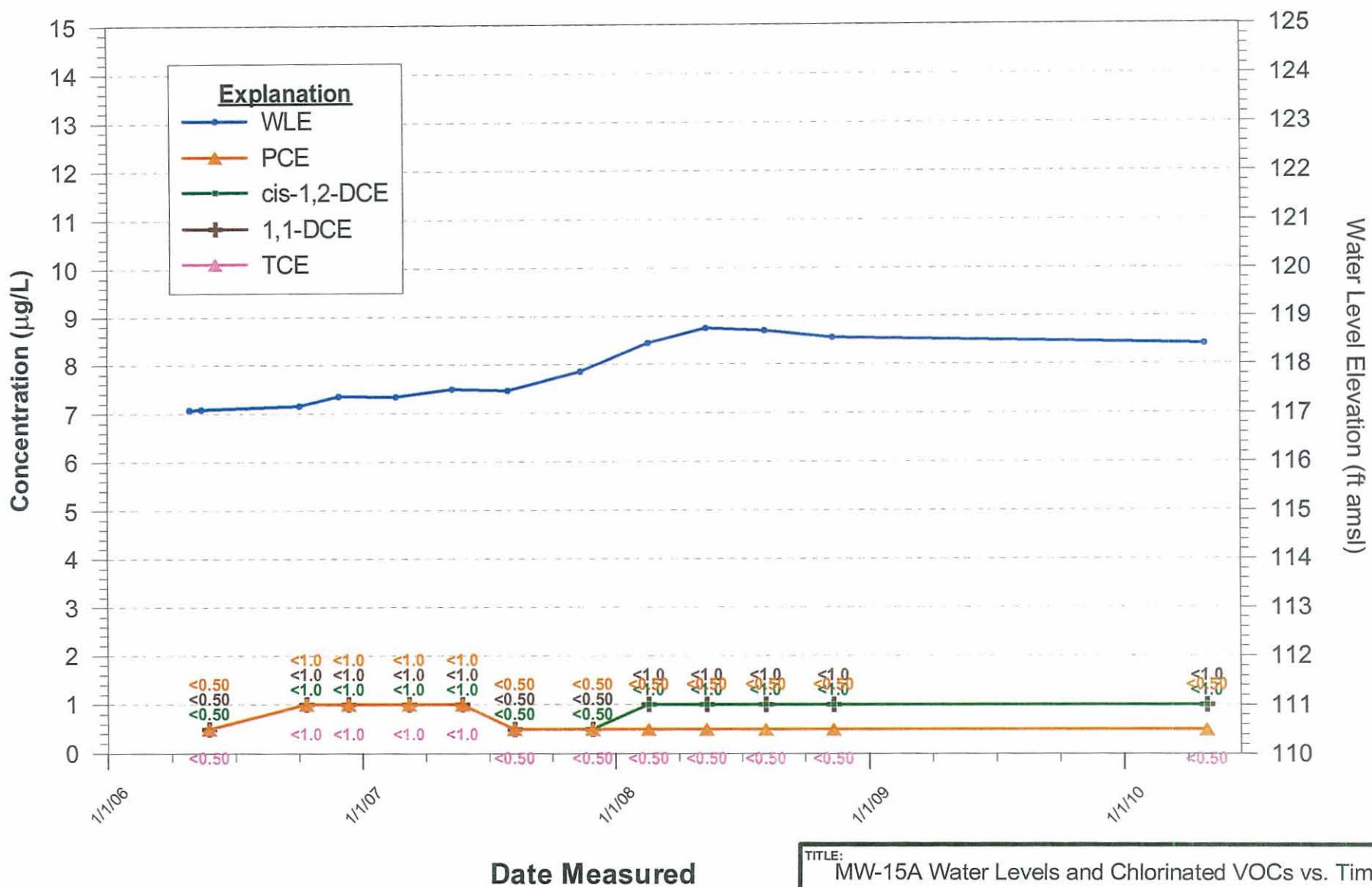
TITLE: MW-14A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-16



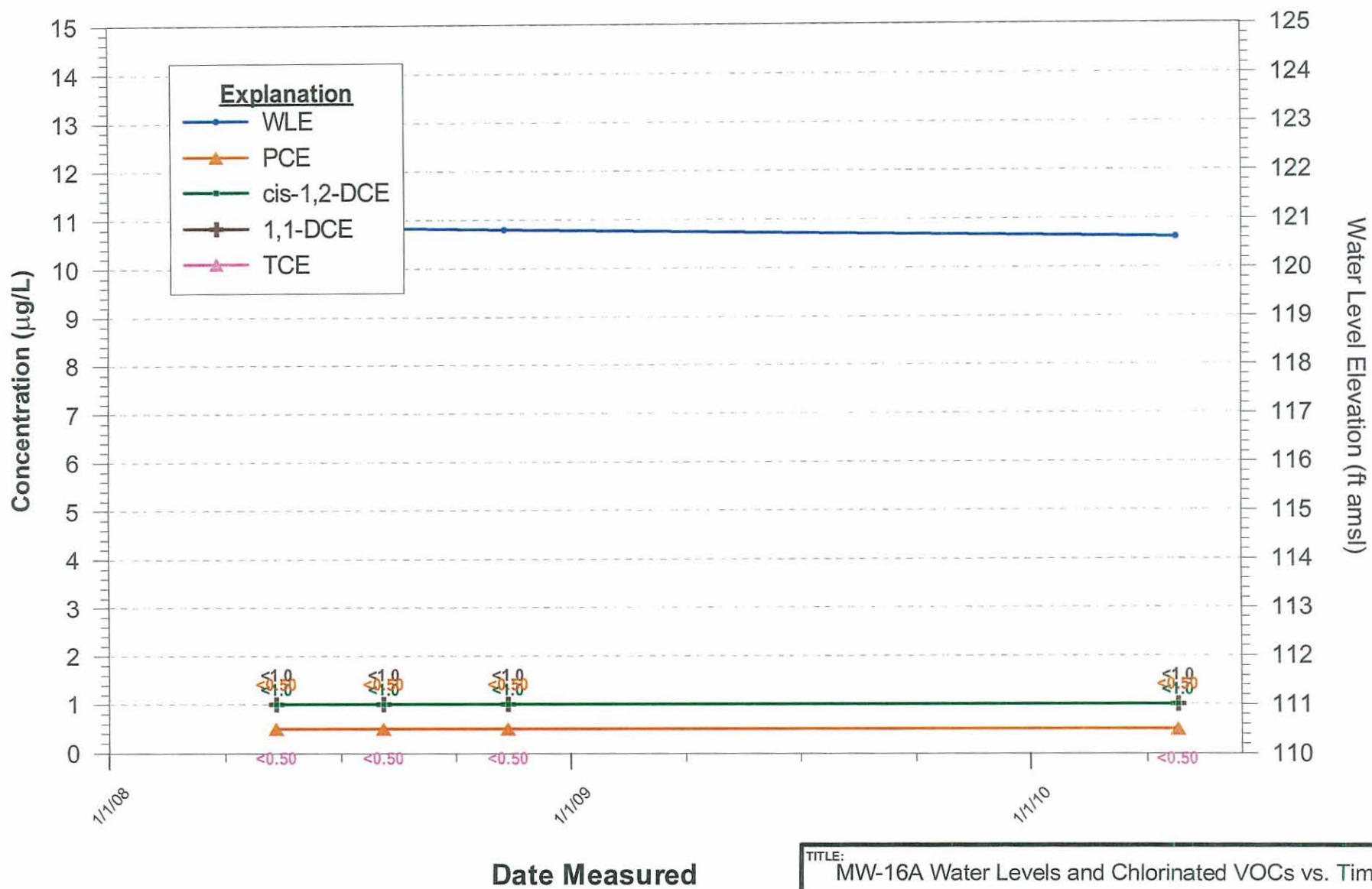
TITLE: MW-15A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-17



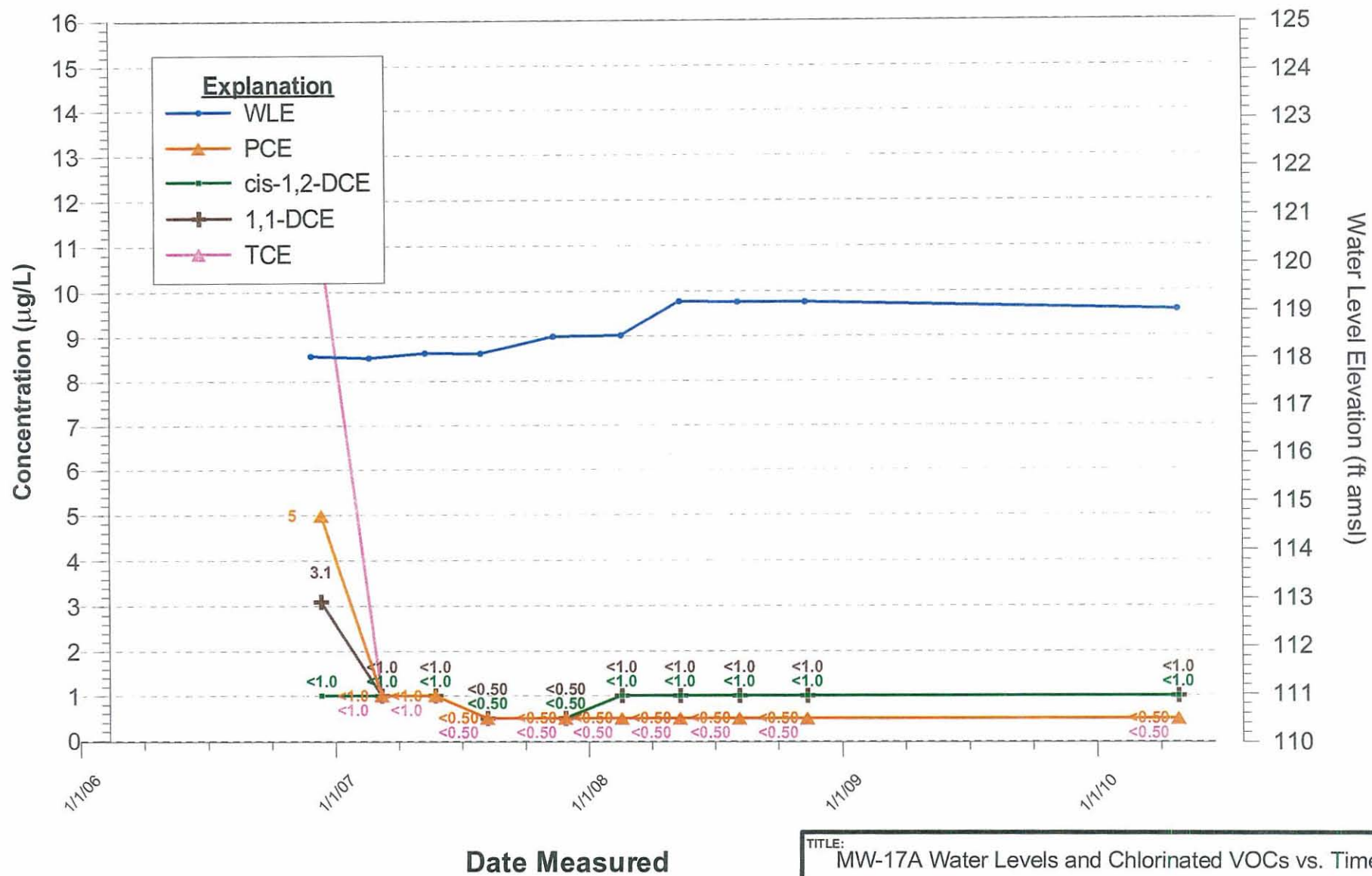
TITLE: MW-16A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-18



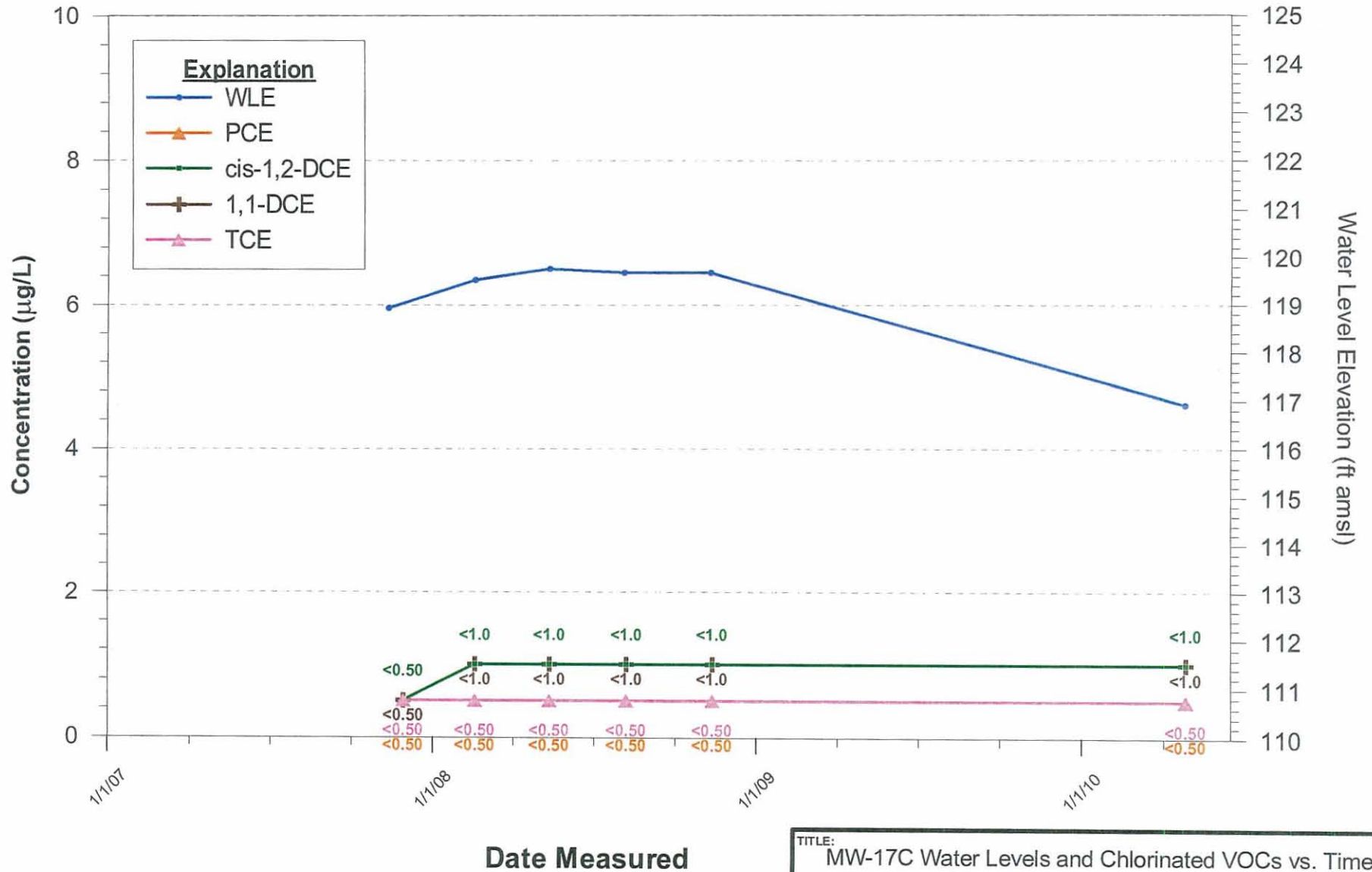
TITLE: MW-17A Water Levels and Chlorinated VOCs vs. Time


CLIENT: YUMA 20TH & FACTOR WQARF SITE

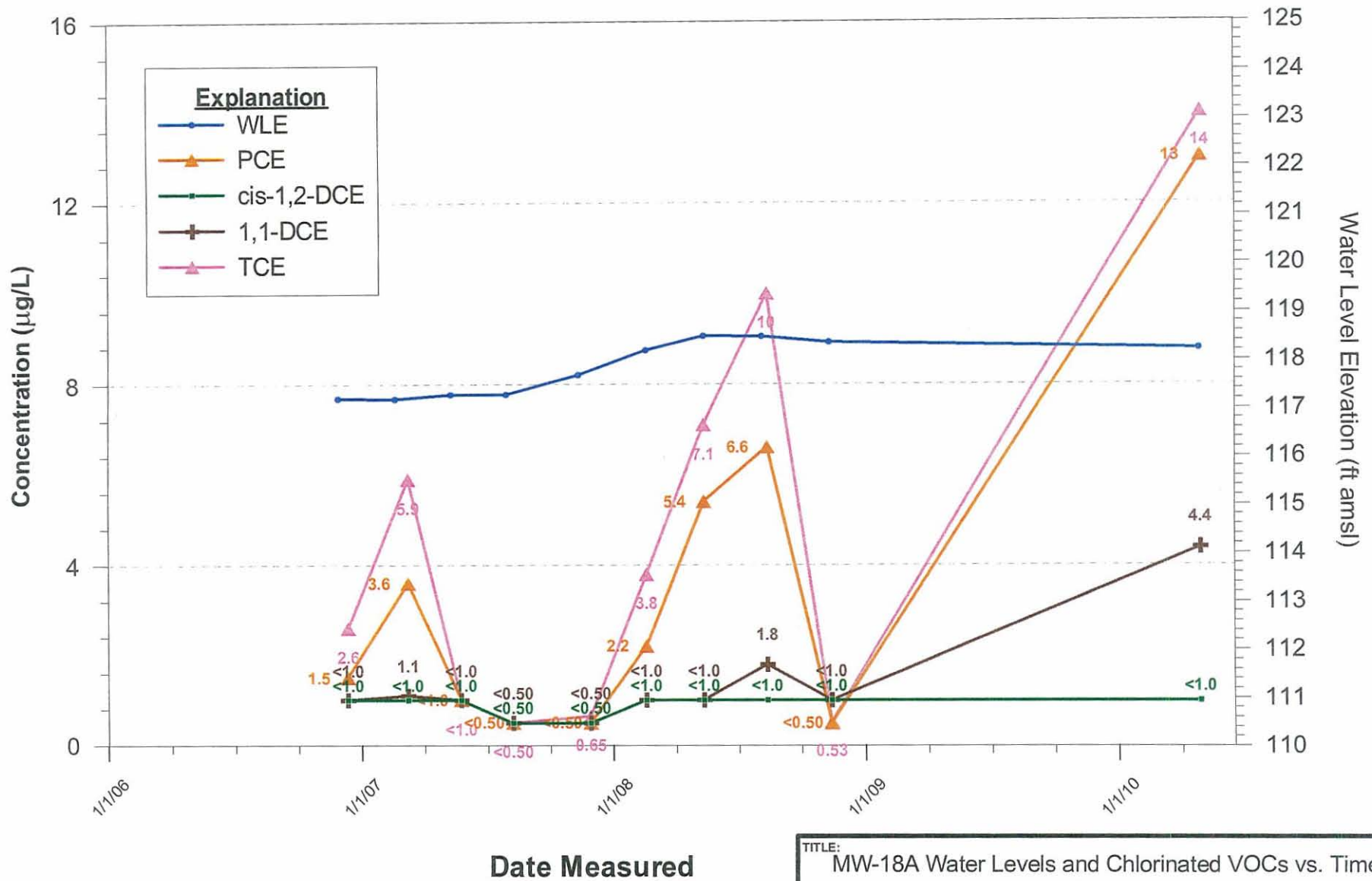


CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-19



TITLE: MW-17C Water Levels and Chlorinated VOCs vs. Time		
CLIENT: YUMA 20TH & FACTOR WQARF SITE		
 GeoTrans, Inc.	CHECKED	JZ
	DRAFTED	MO
	PROJECT	1303.036
	DATE	06/16/10
FIGURE:		I-20

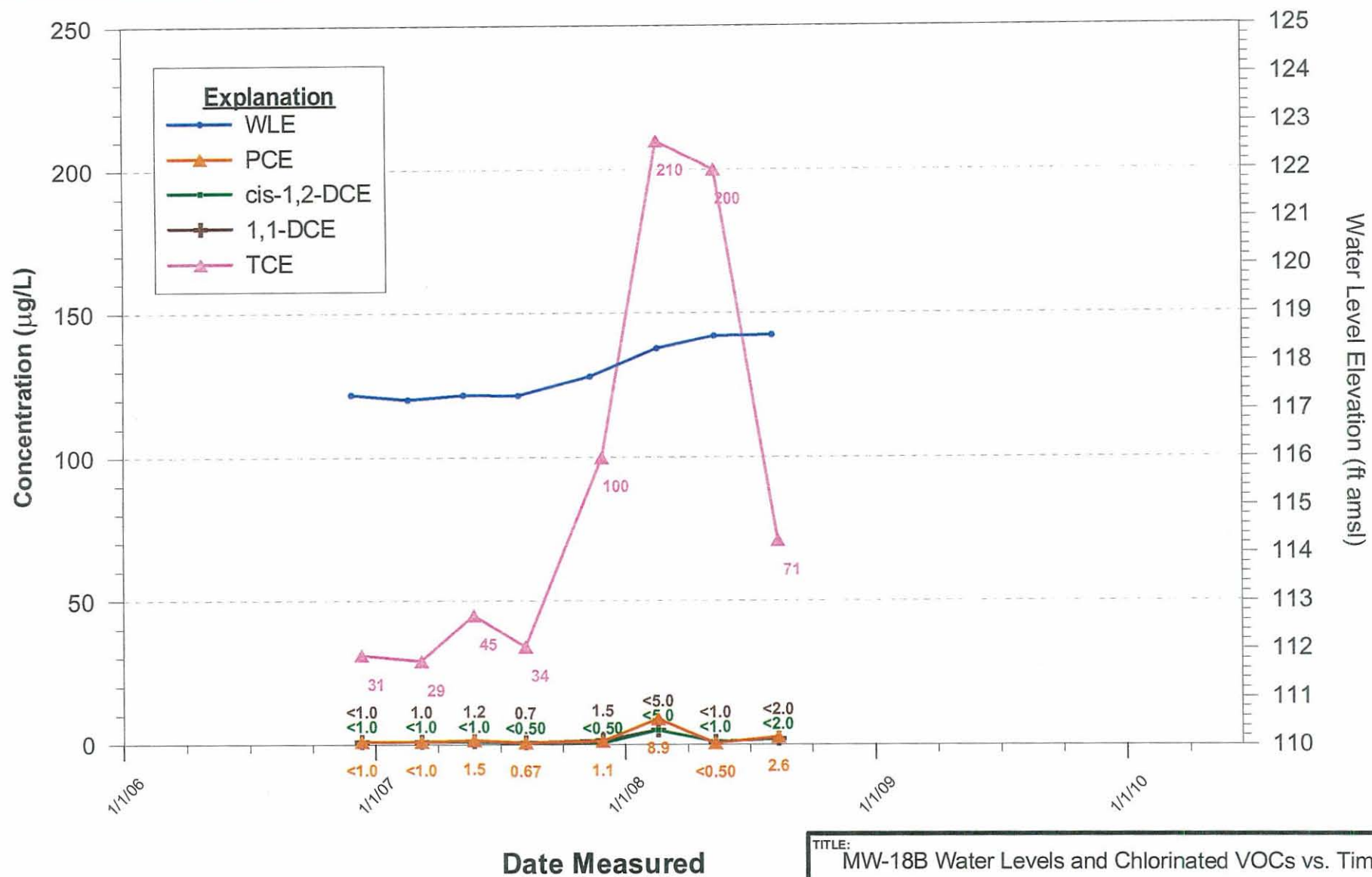


TITLE: MW-18A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ	FIGURE: I-21
DRAFTED	MO	
PROJECT	1303.036	
DATE	06/16/10	



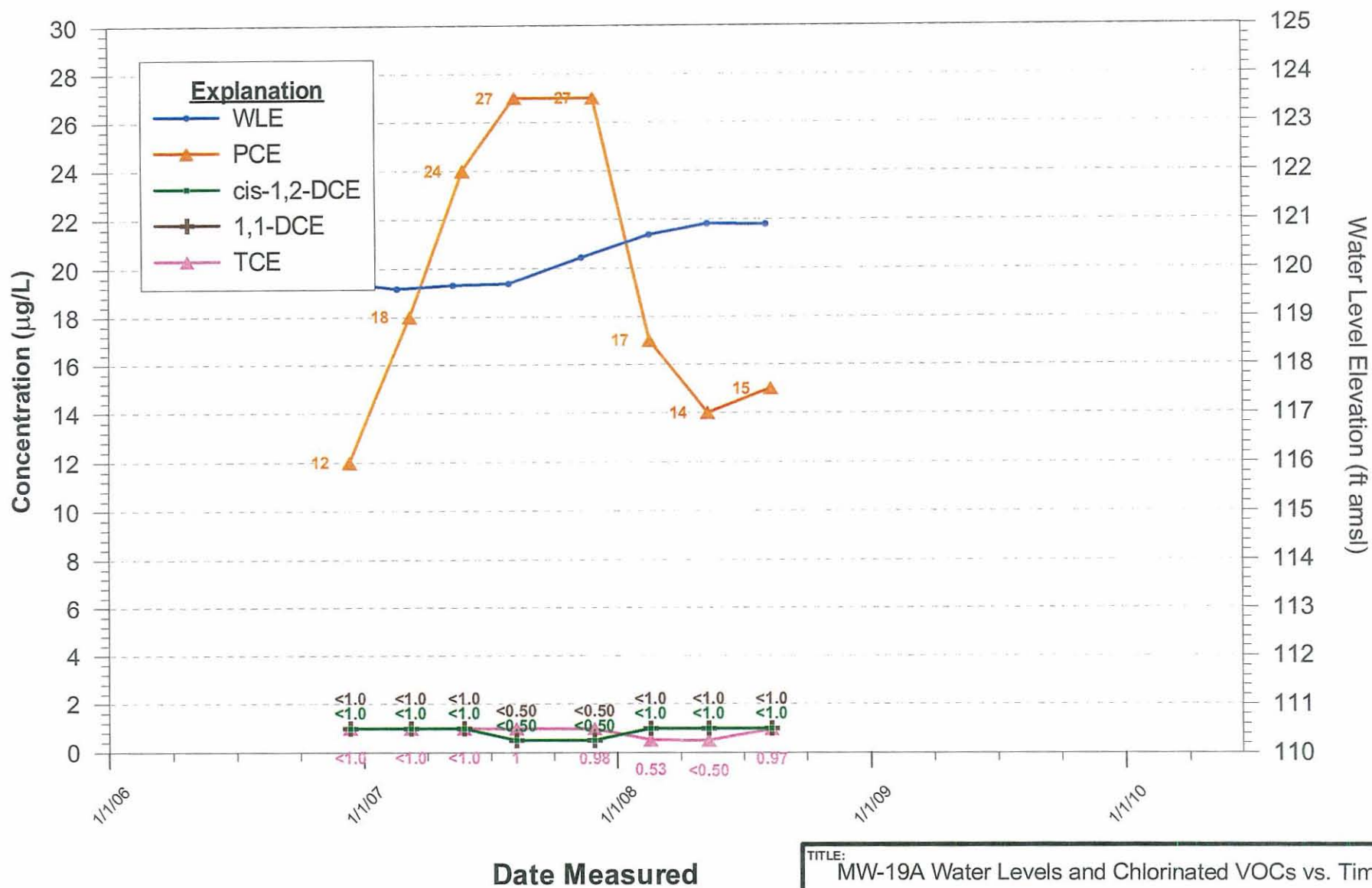
TITLE: MW-18B Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-22



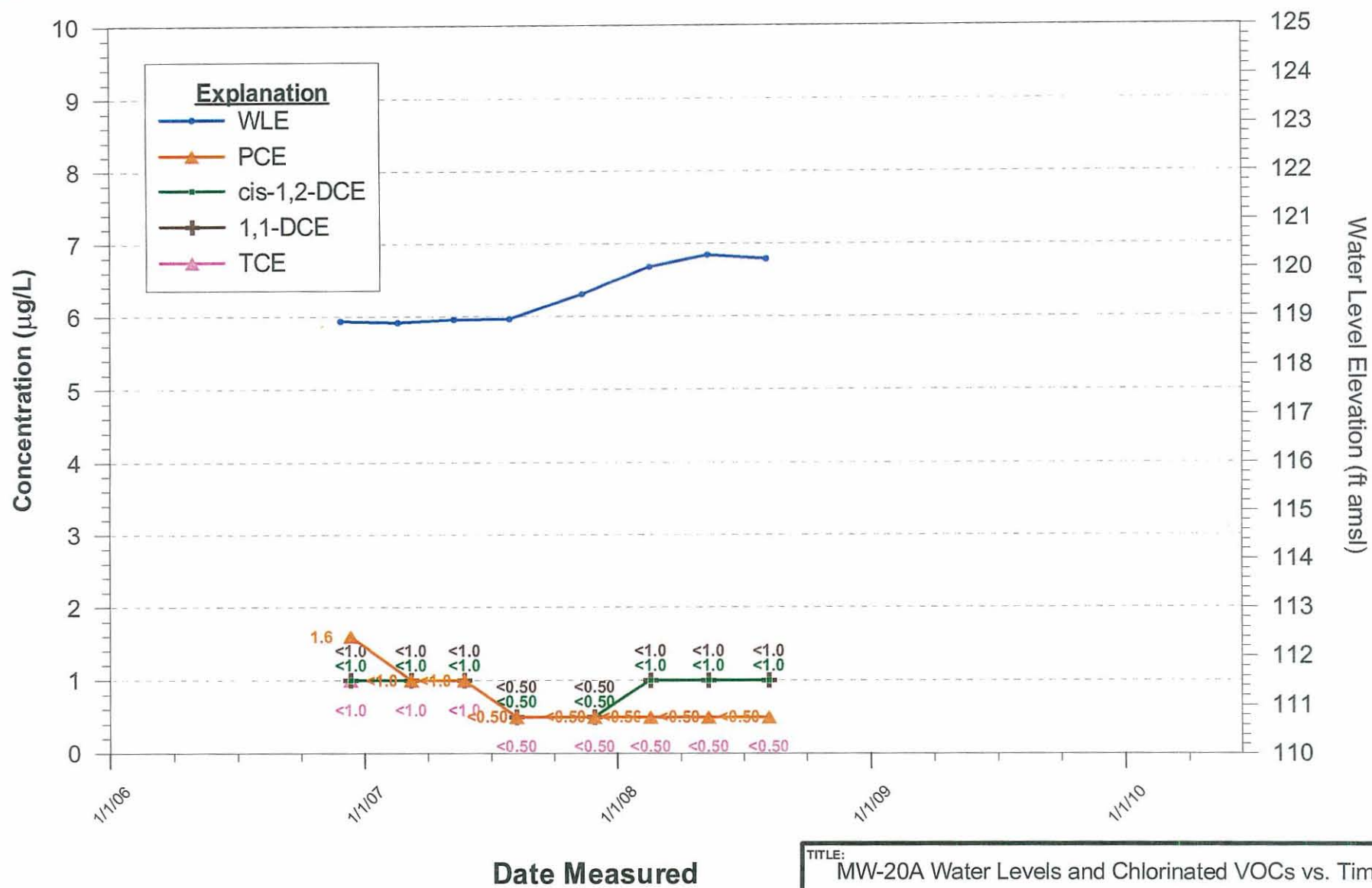
TITLE: MW-19A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-23



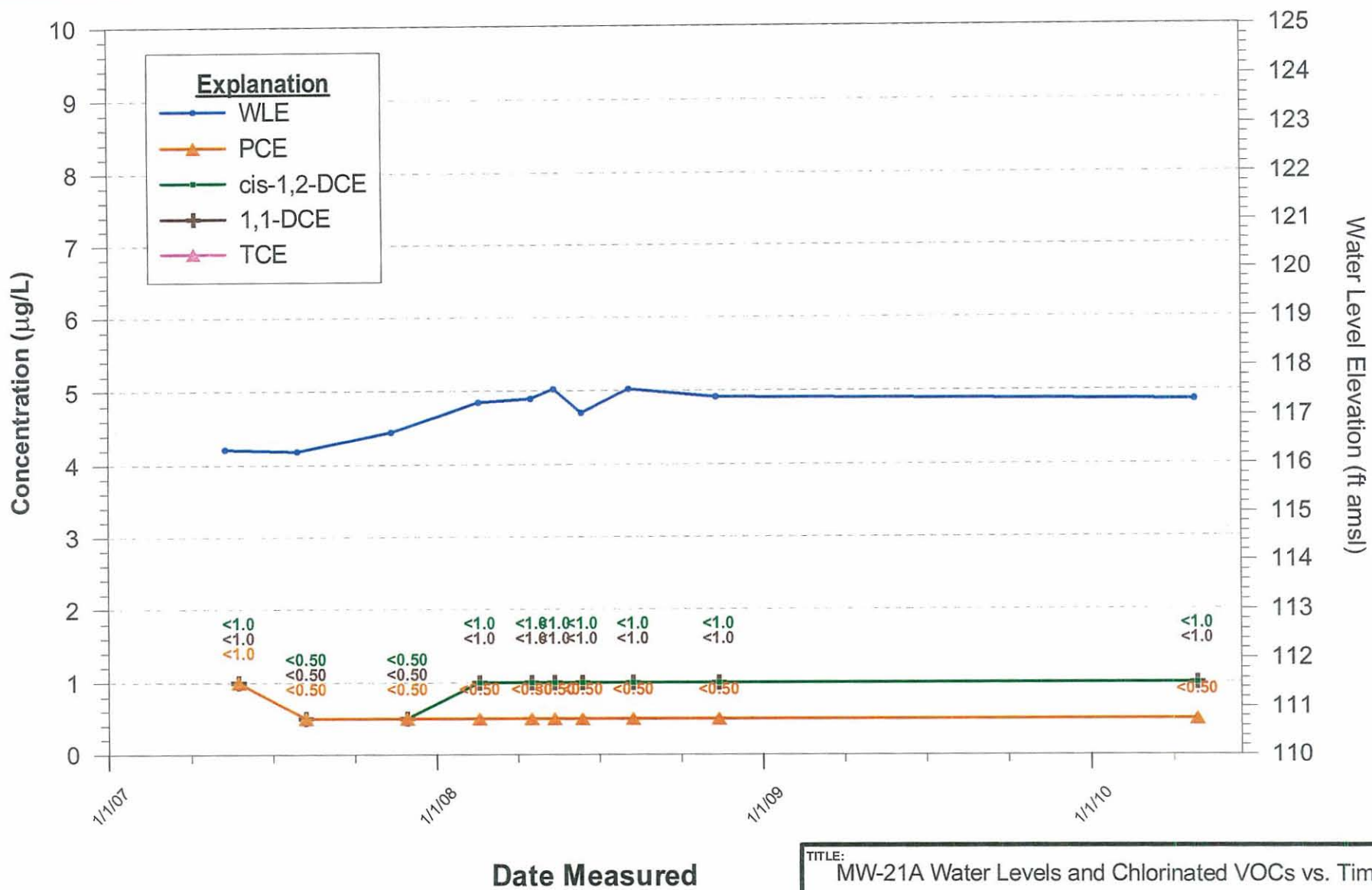
TITLE: MW-20A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-24



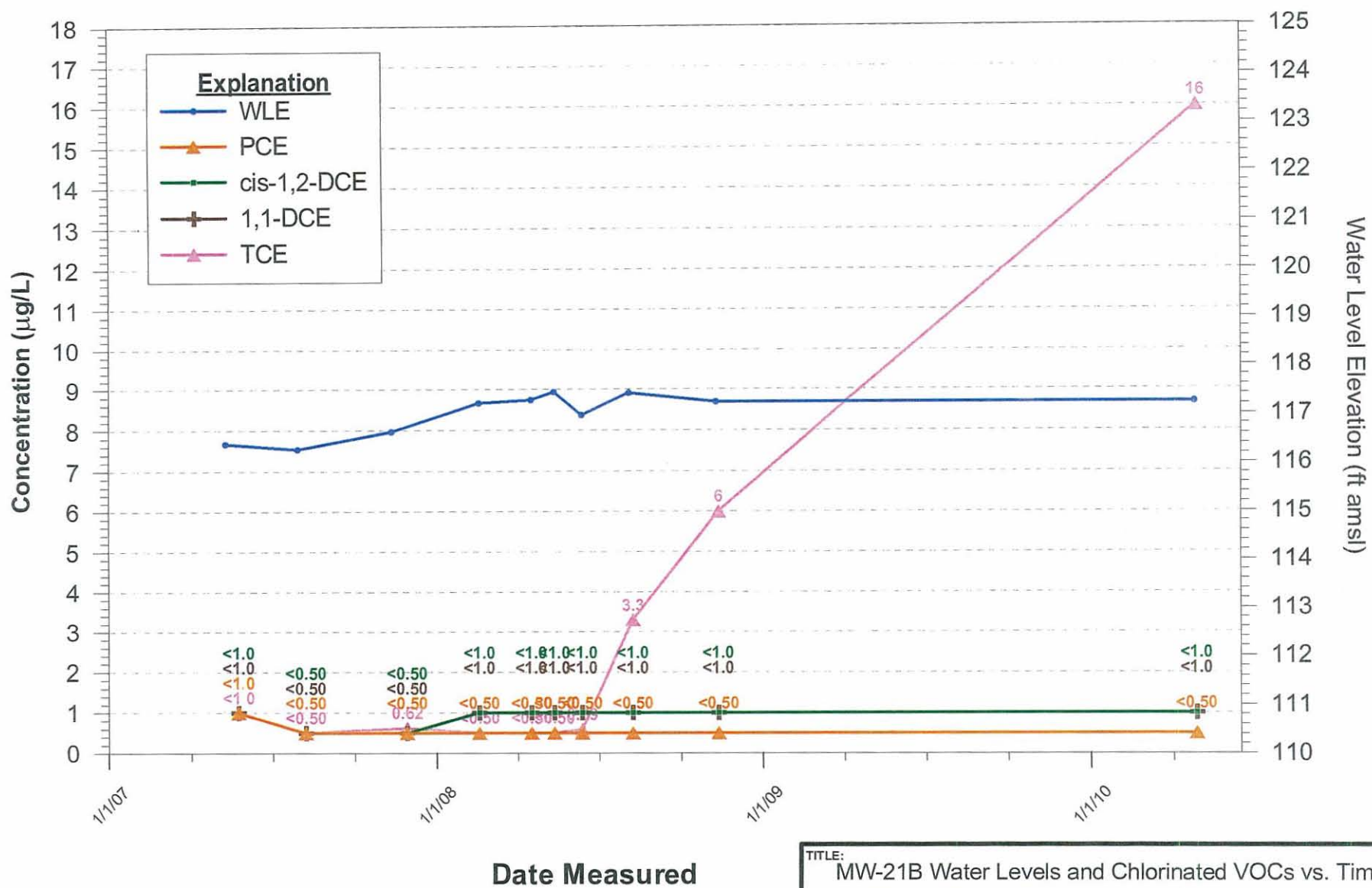
TITLE: MW-21A Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-25



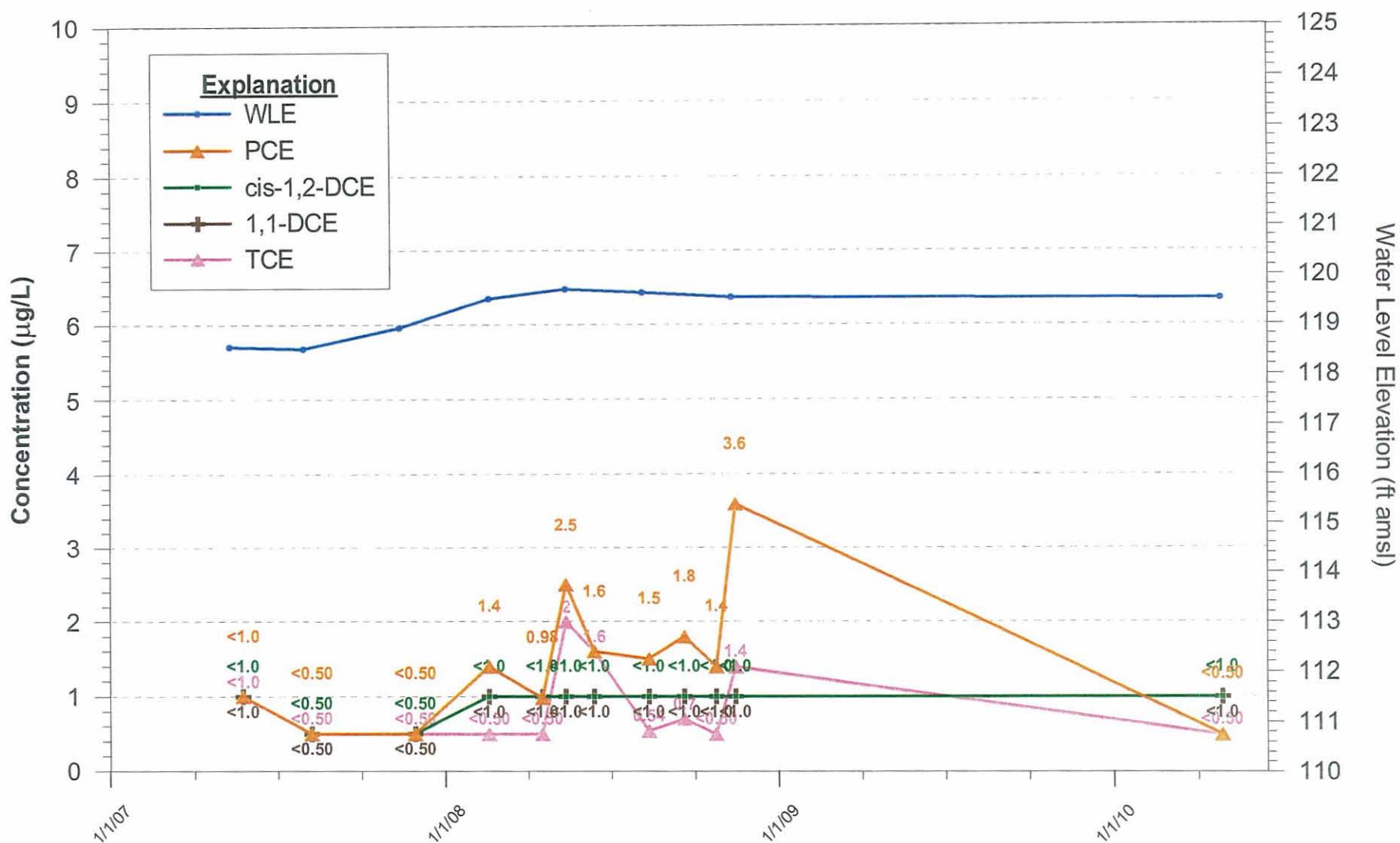
TITLE: MW-21B Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-26



Note: Most recent VOC concentrations presented are from an additional sample collected on March 19, 2008. PCE and TCE were detected in the original sample collected on February 27, 2008, as part of the February 2008 groundwater sampling event at concentrations of 20 µg/L and 5.2 µg/L, respectively.

Date Measured

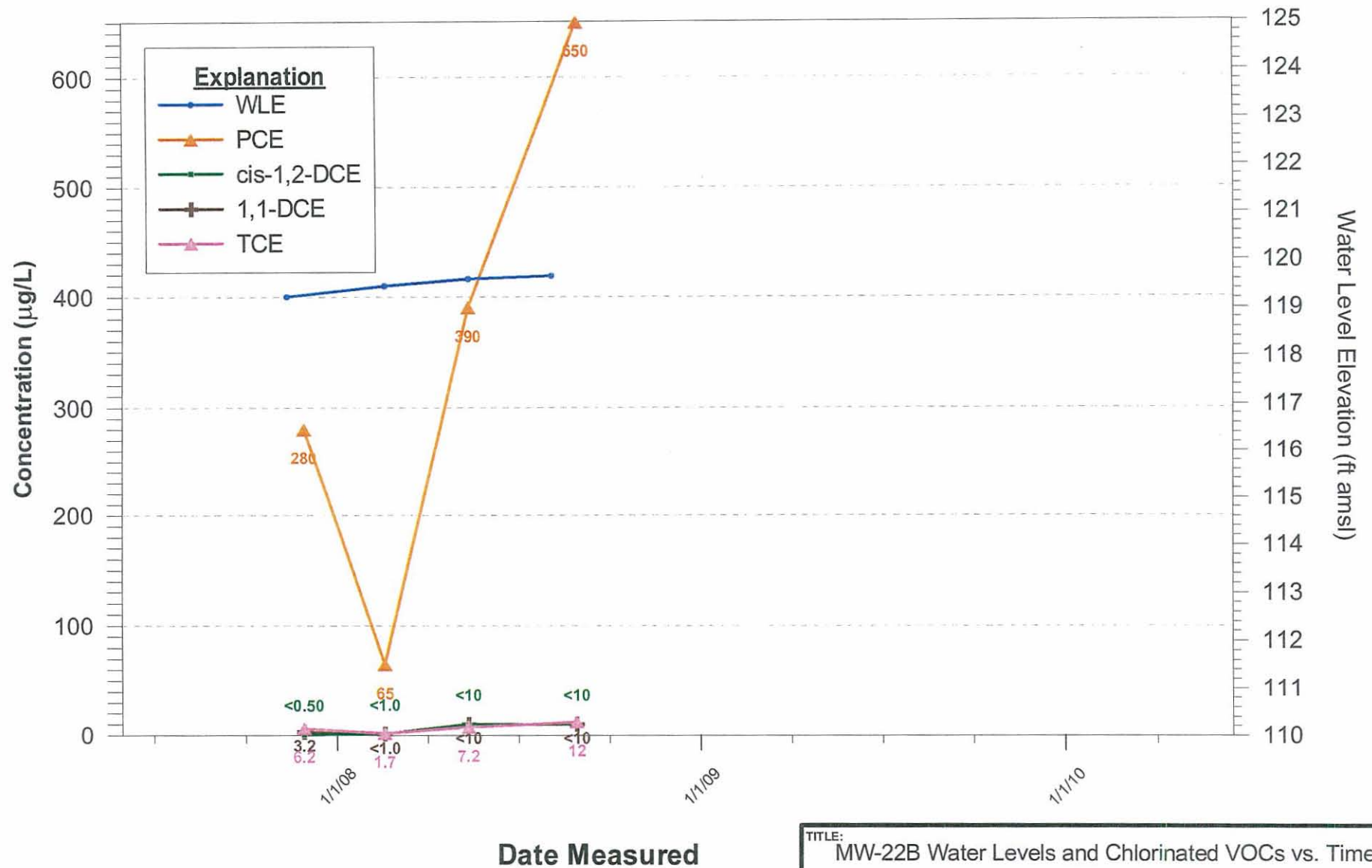
TITLE: MW-21C Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-27



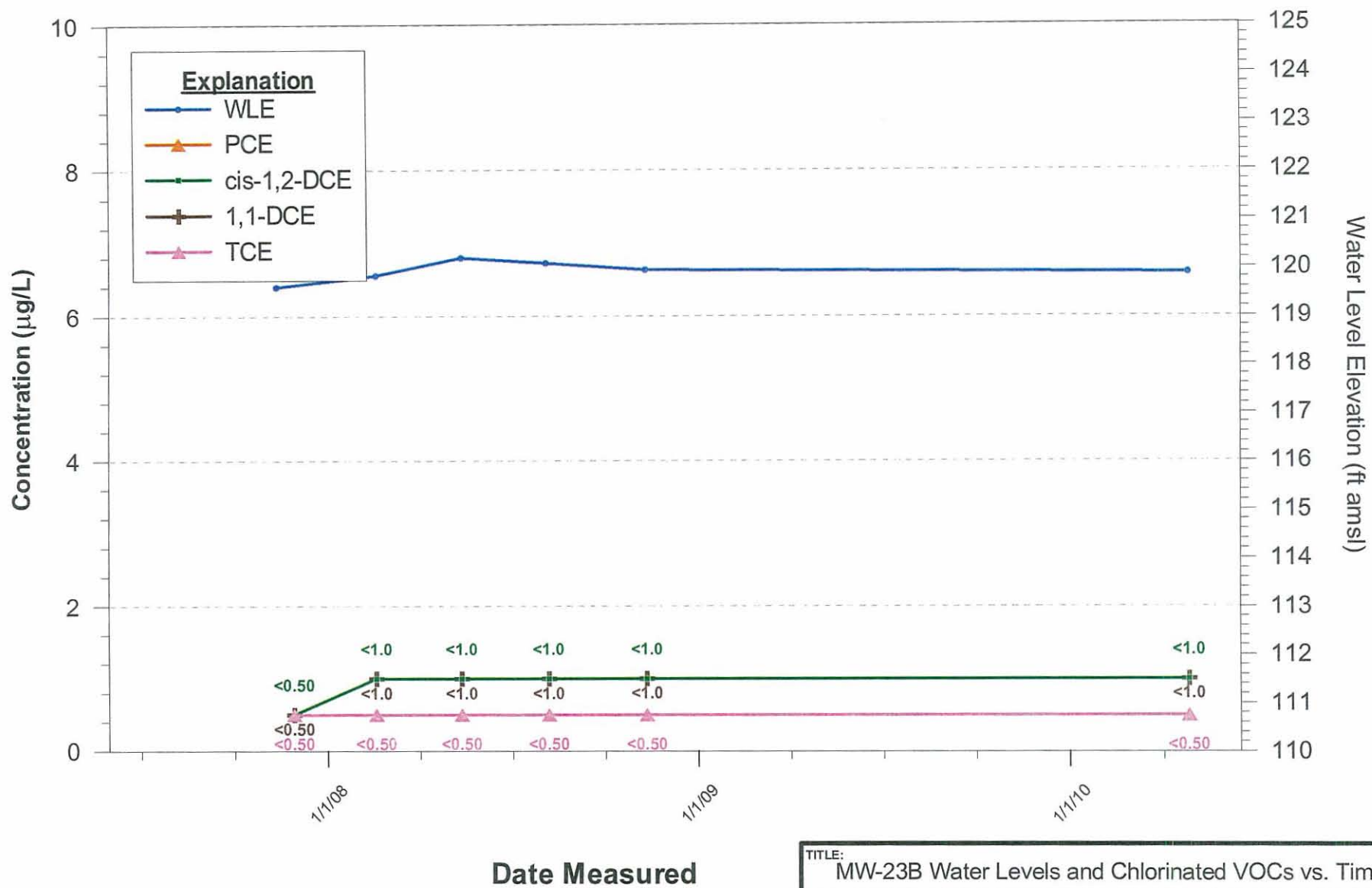
TITLE: MW-22B Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-28



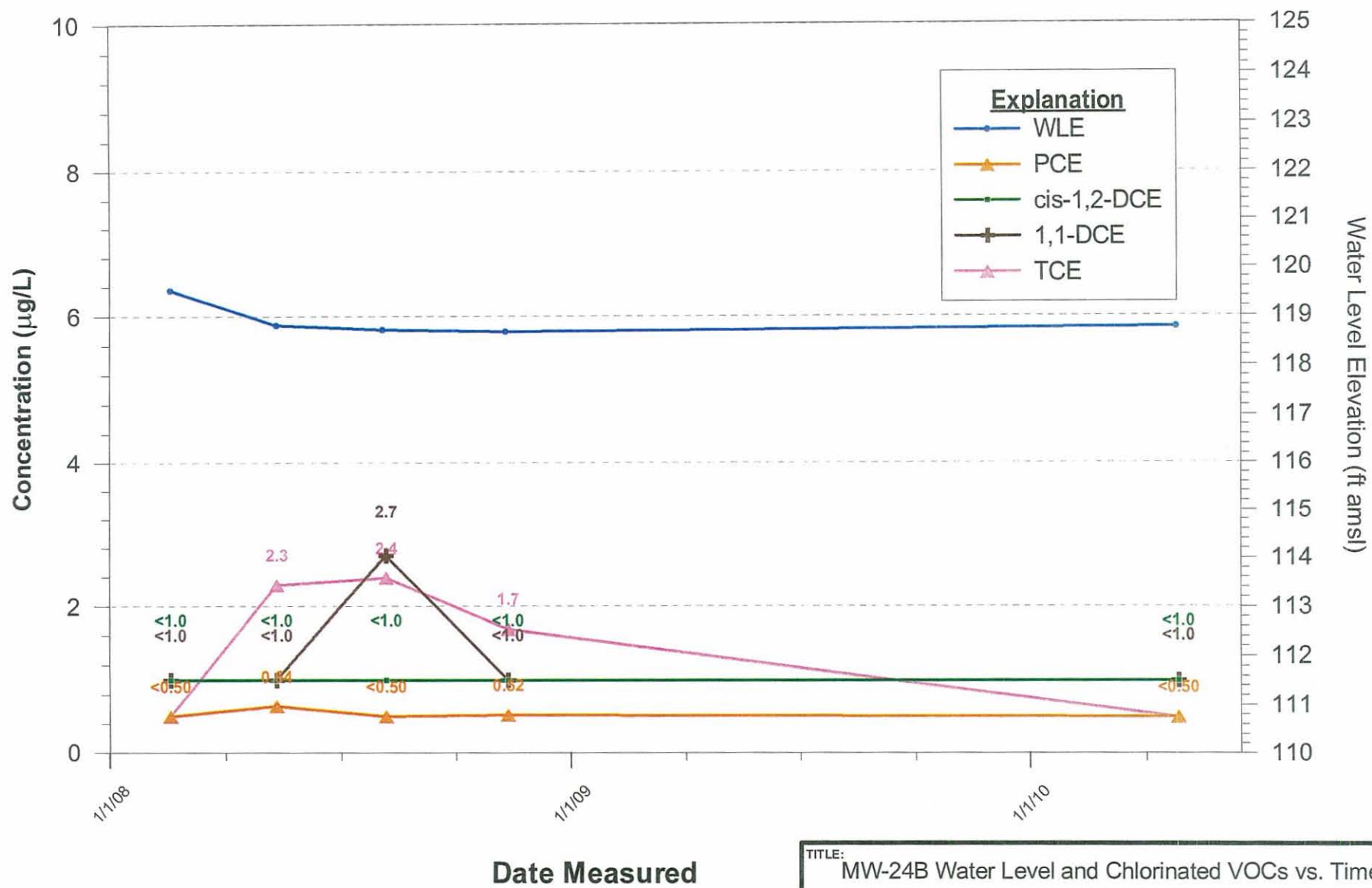
TITLE: MW-23B Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-29



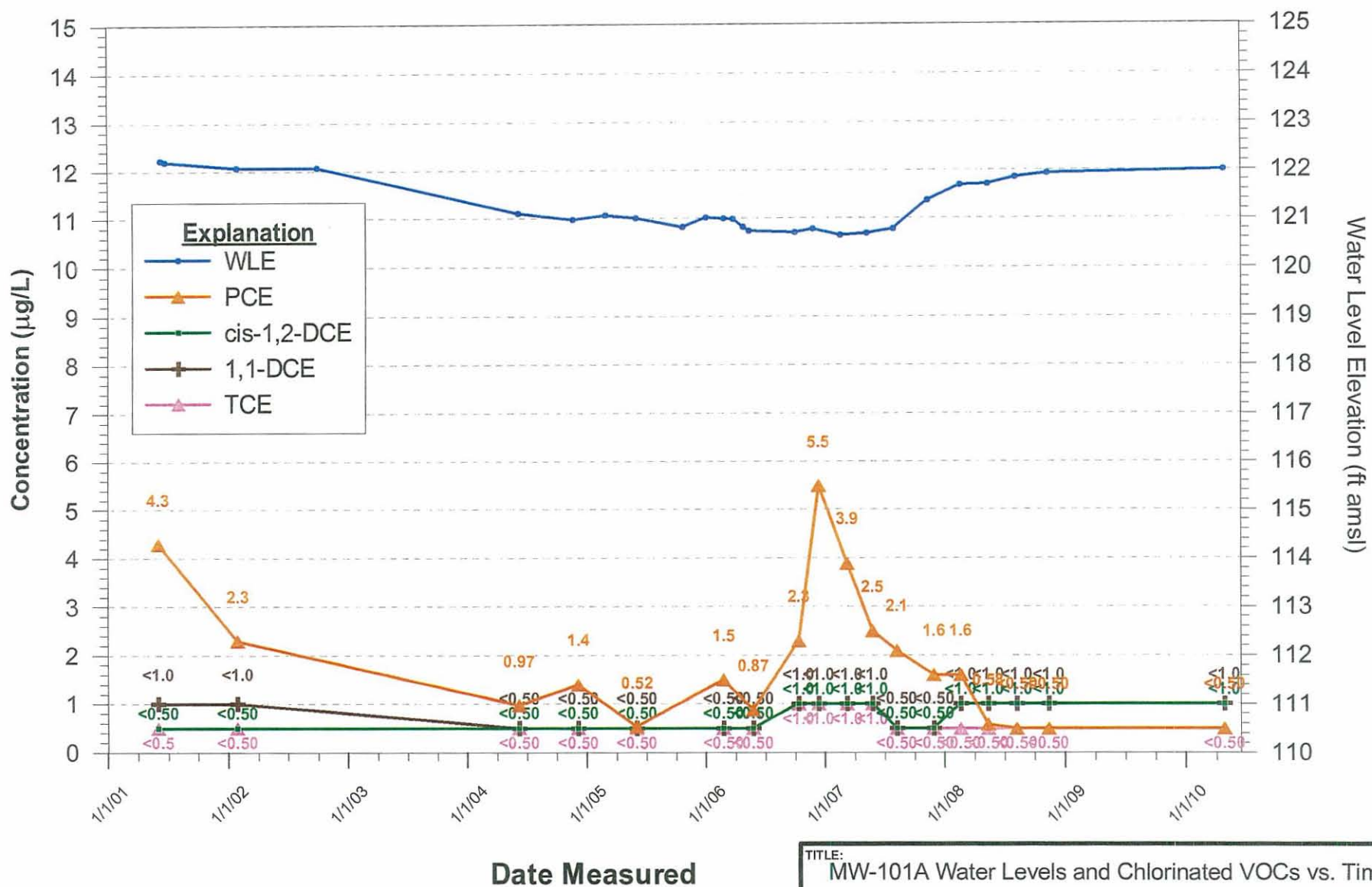
TITLE: MW-24B Water Level and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-30



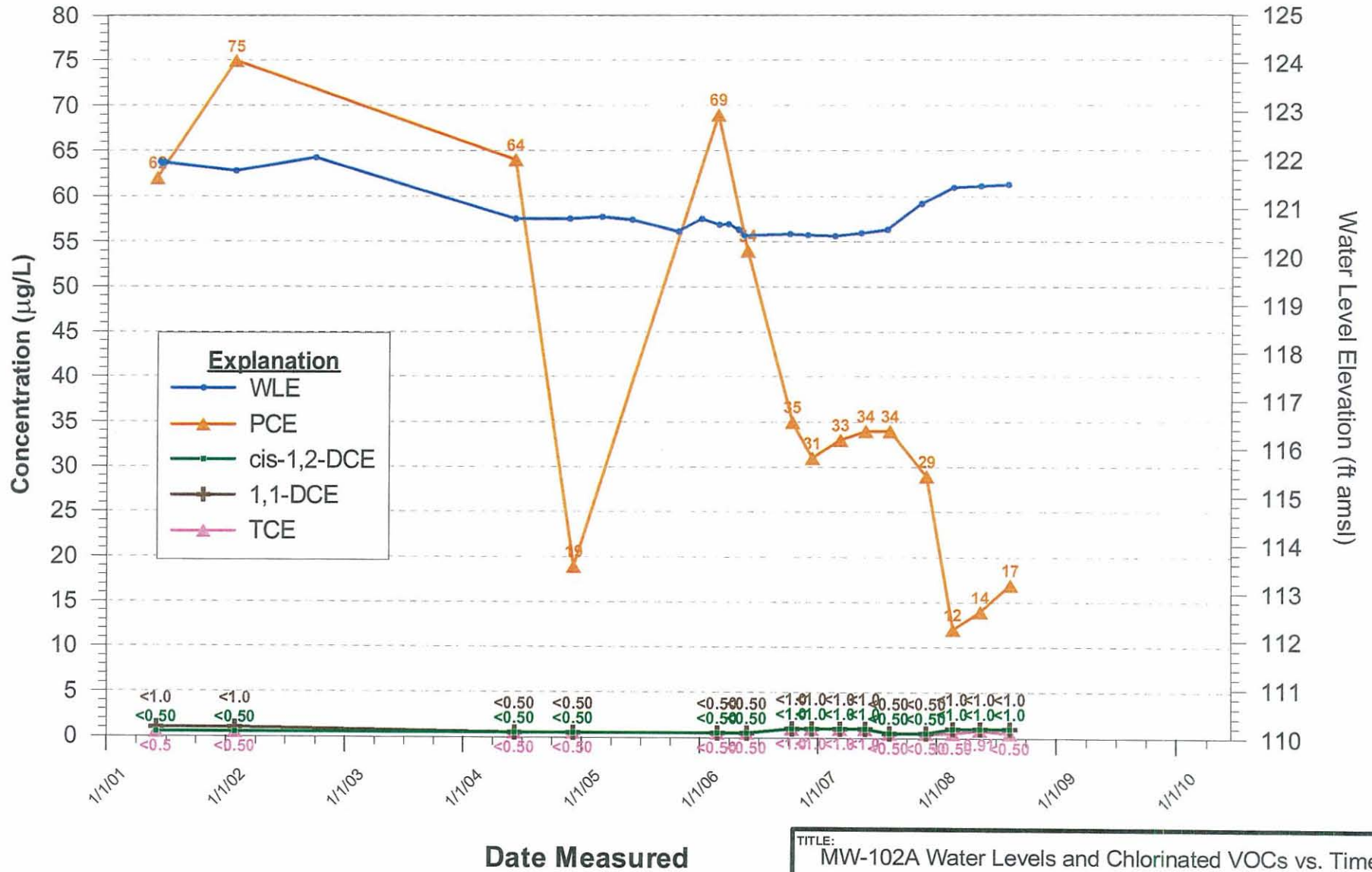
TITLE: MW-101A Water Levels and Chlorinated VOCs vs. Time


CLIENT: YUMA 20TH & FACTOR WQARF SITE

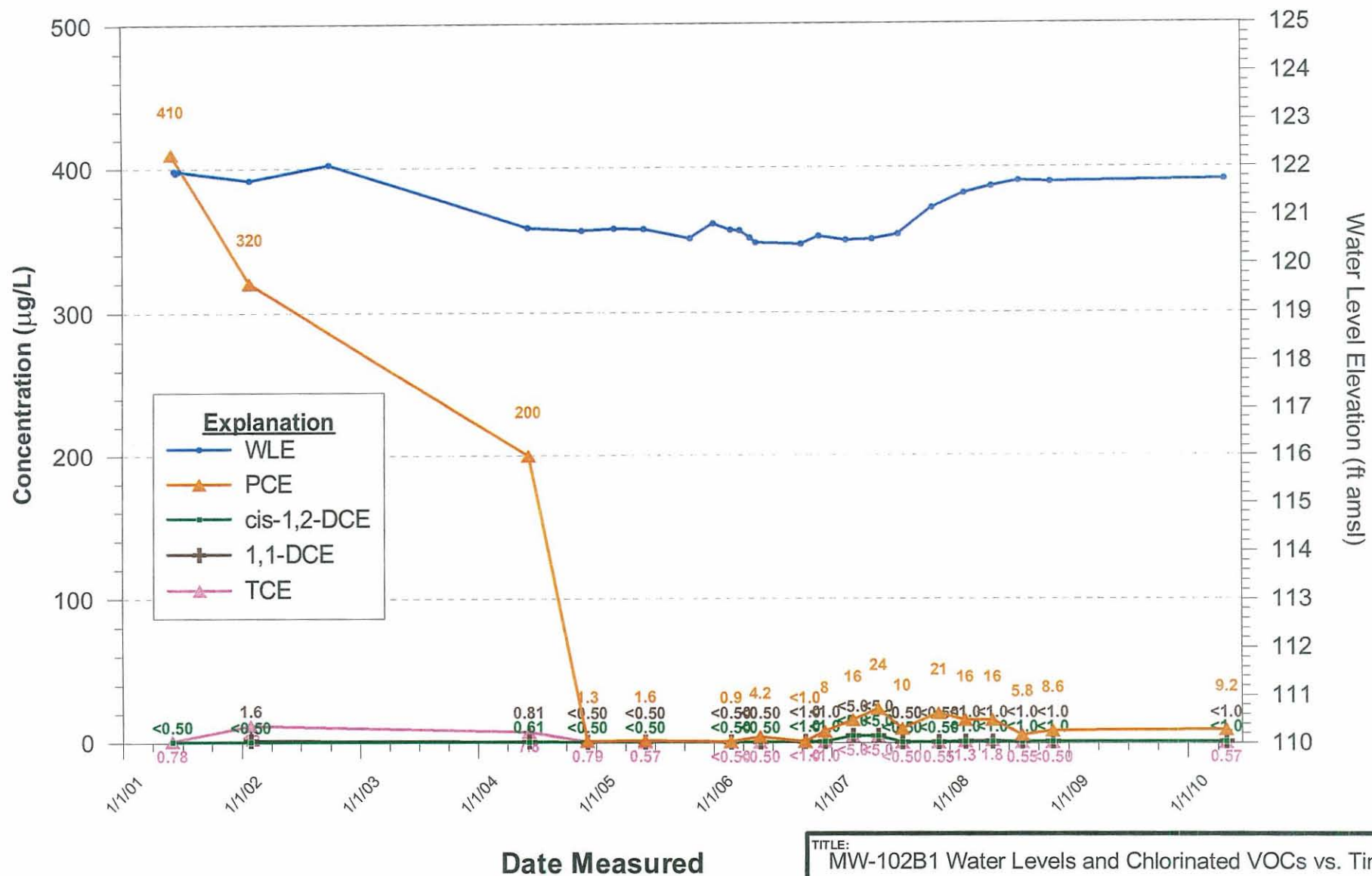


CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-31



TITLE: MW-102A Water Levels and Chlorinated VOCs vs. Time		
CLIENT: YUMA 20TH & FACTOR WQARF SITE		
	CHECKED	JZ
	DRAFTED	MO
	PROJECT	1303.036
	DATE	06/16/10
		FIGURE: I-32



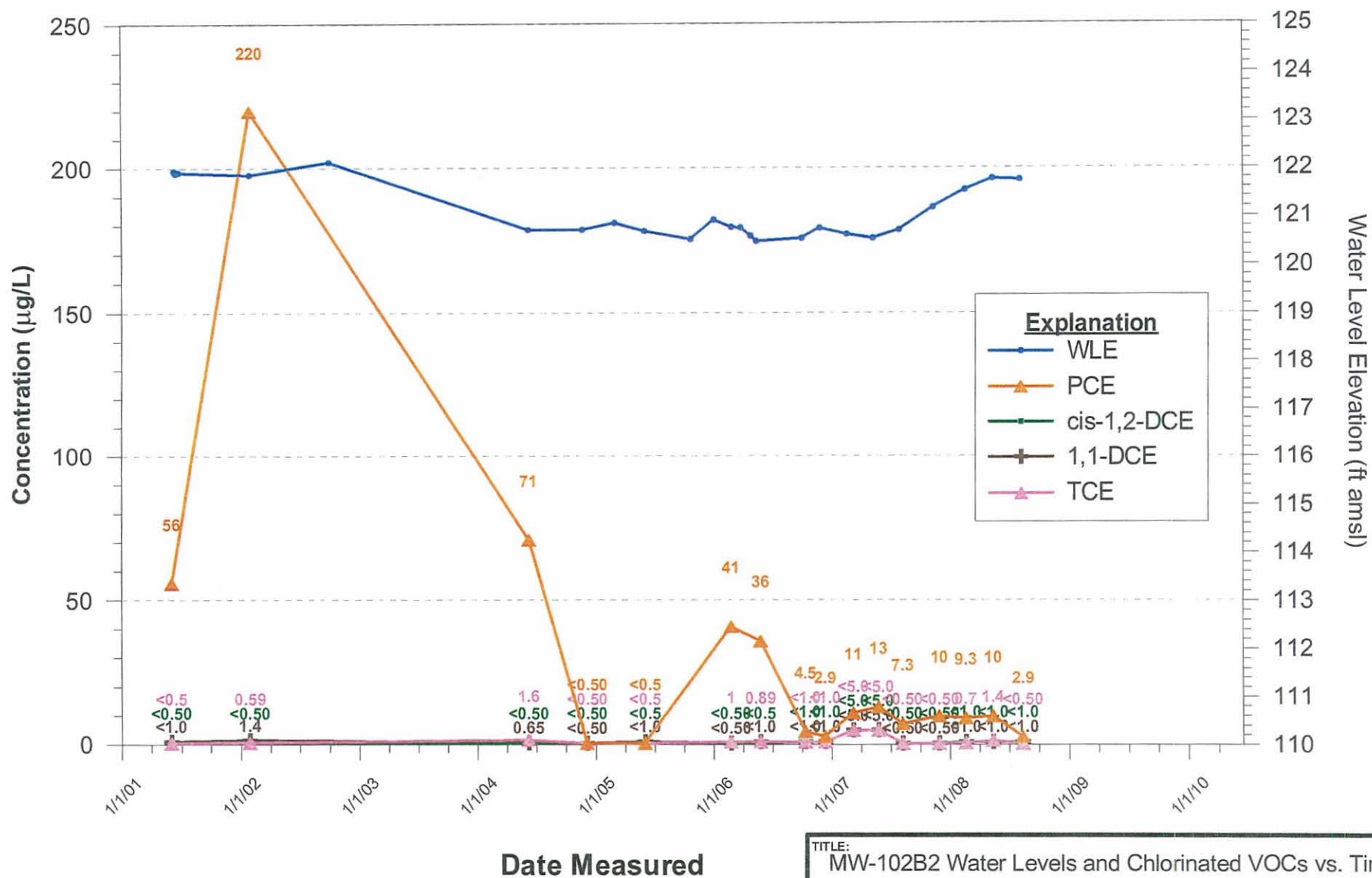
TITLE: MW-102B1 Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-33



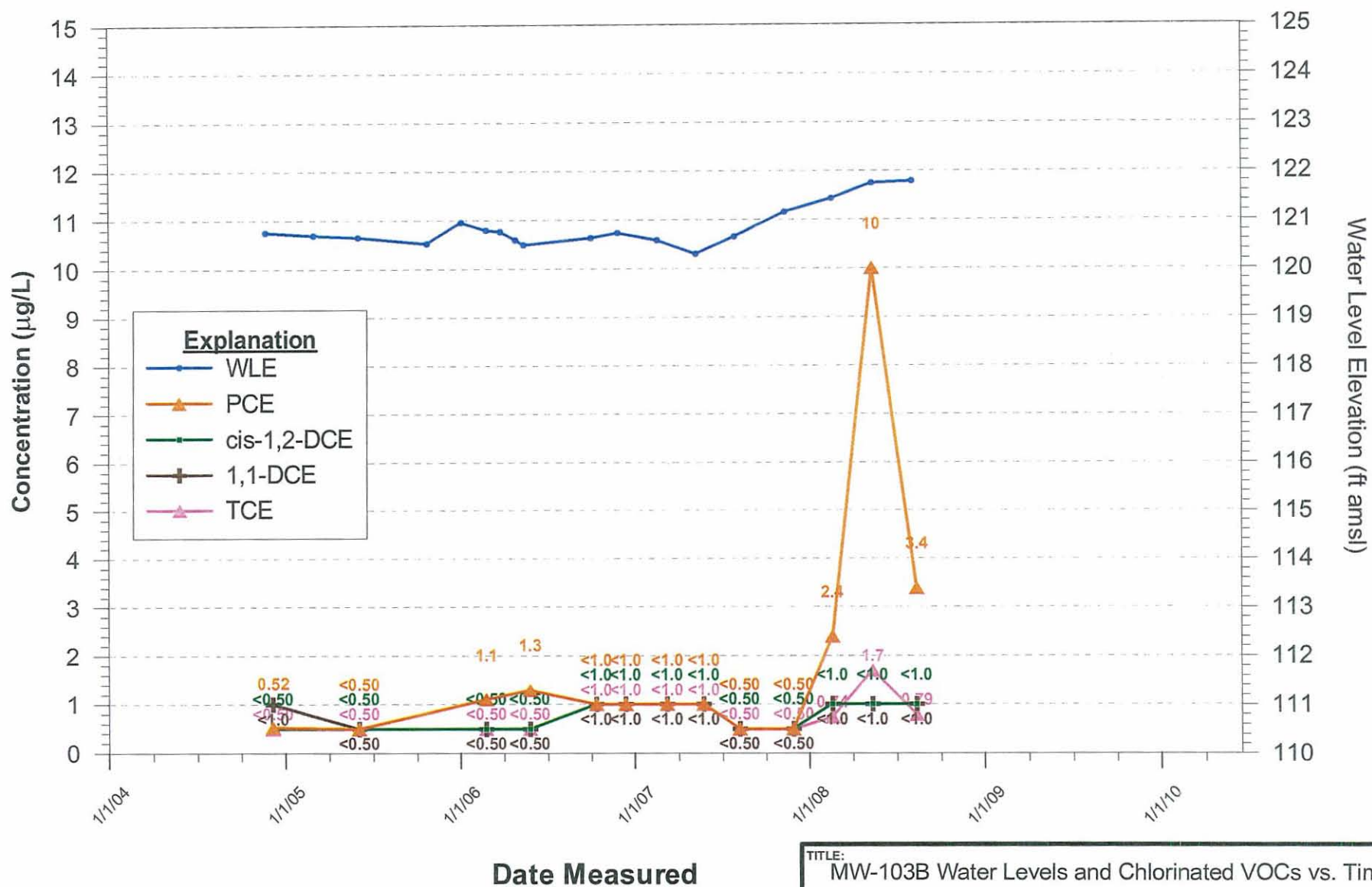
TITLE: MW-102B2 Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-34



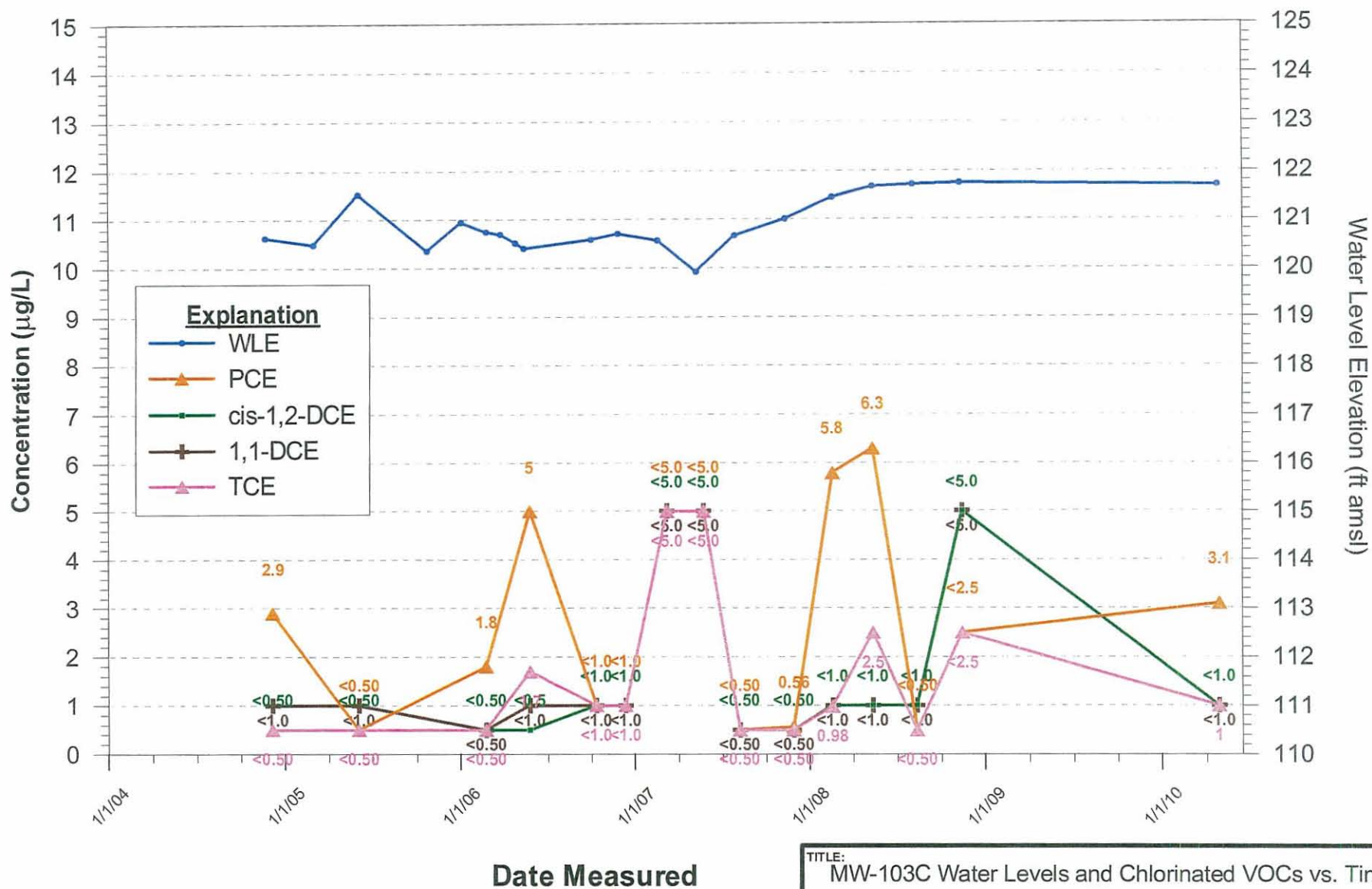
TITLE: MW-103B Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-35



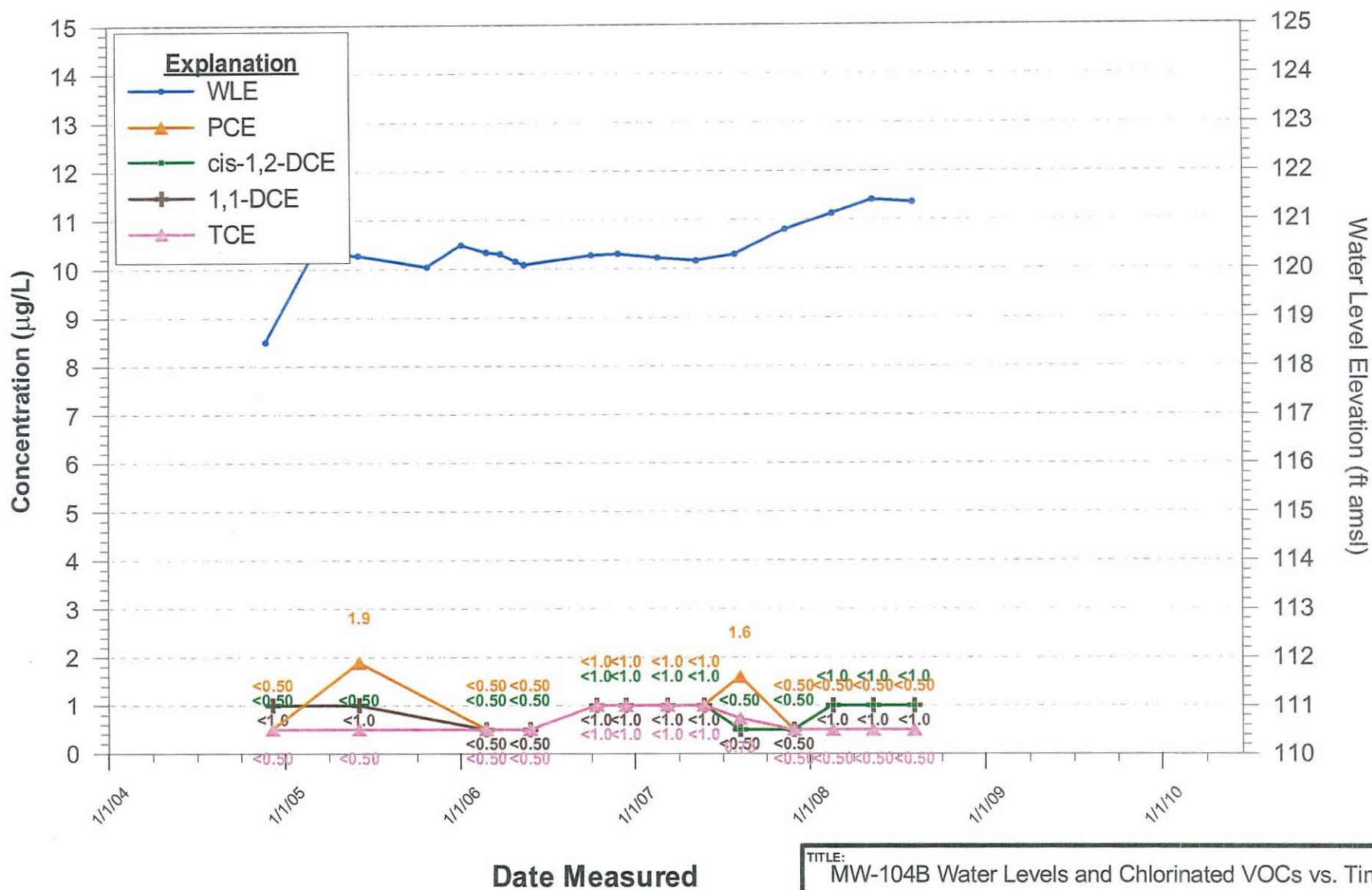
TITLE: MW-103C Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE: I-36



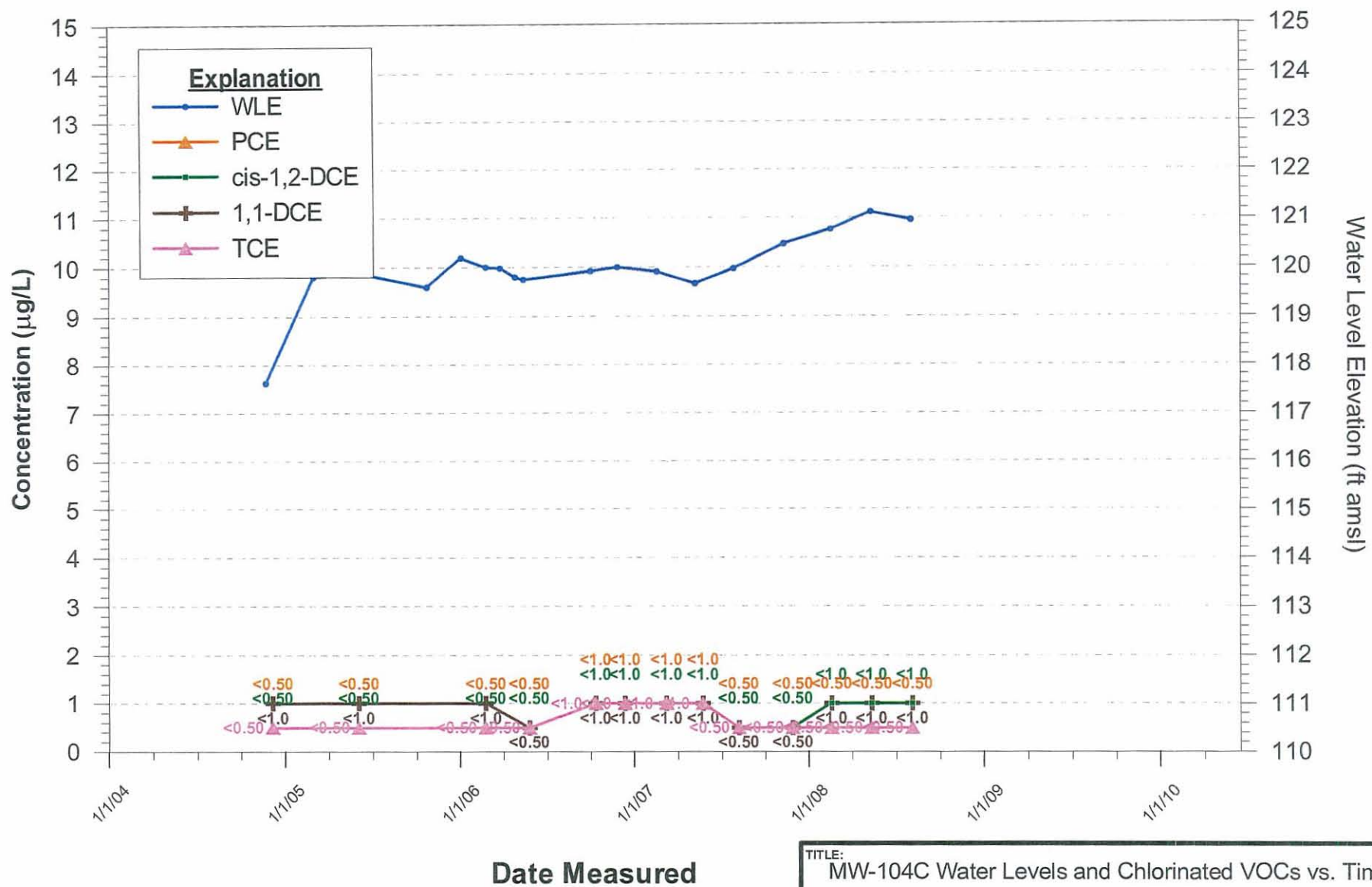
TITLE: MW-104B Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-37



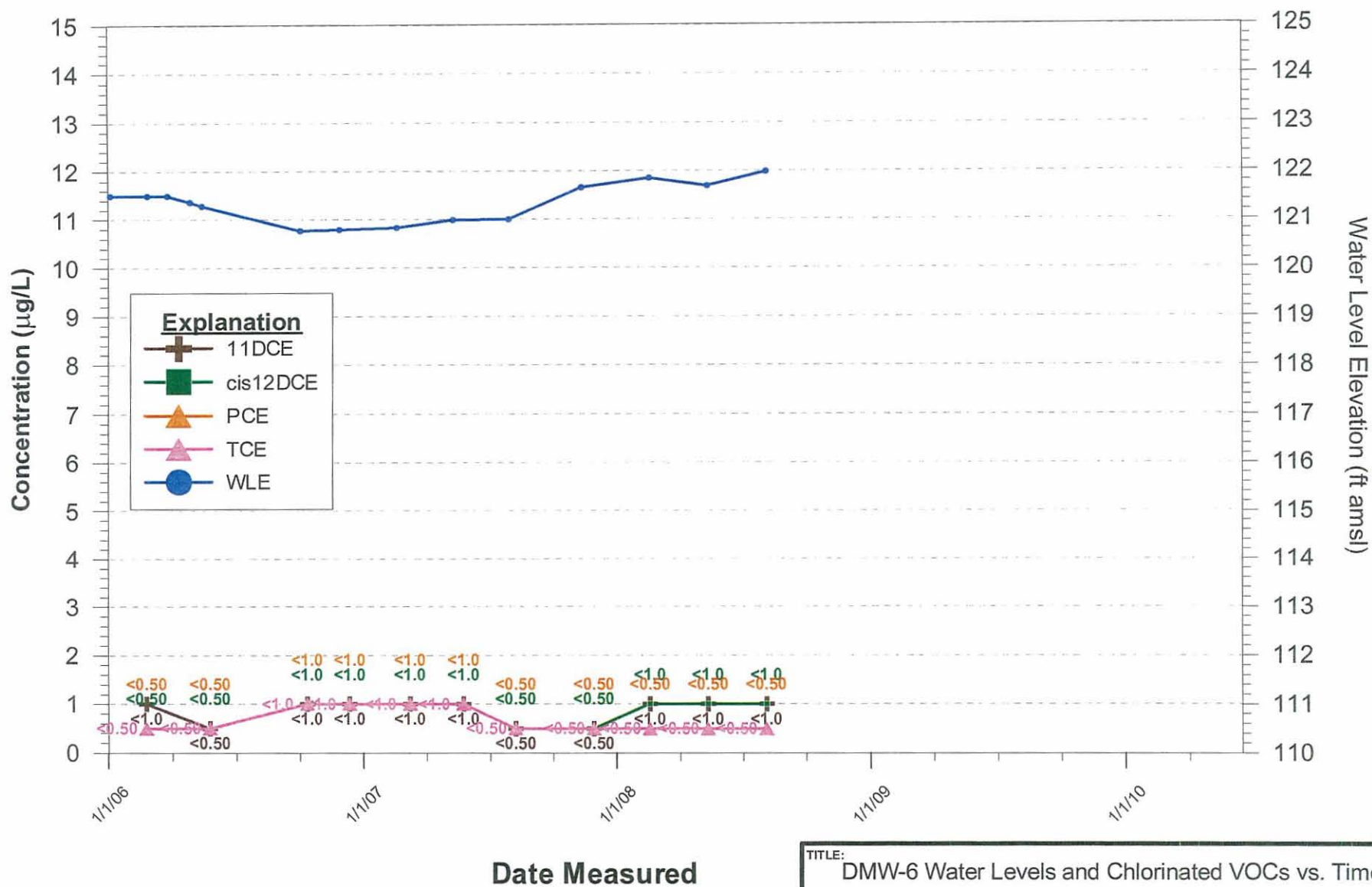
TITLE: MW-104C Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-38



Note: VOCs have not been detected in monitoring well DMW-6A since February 2006.

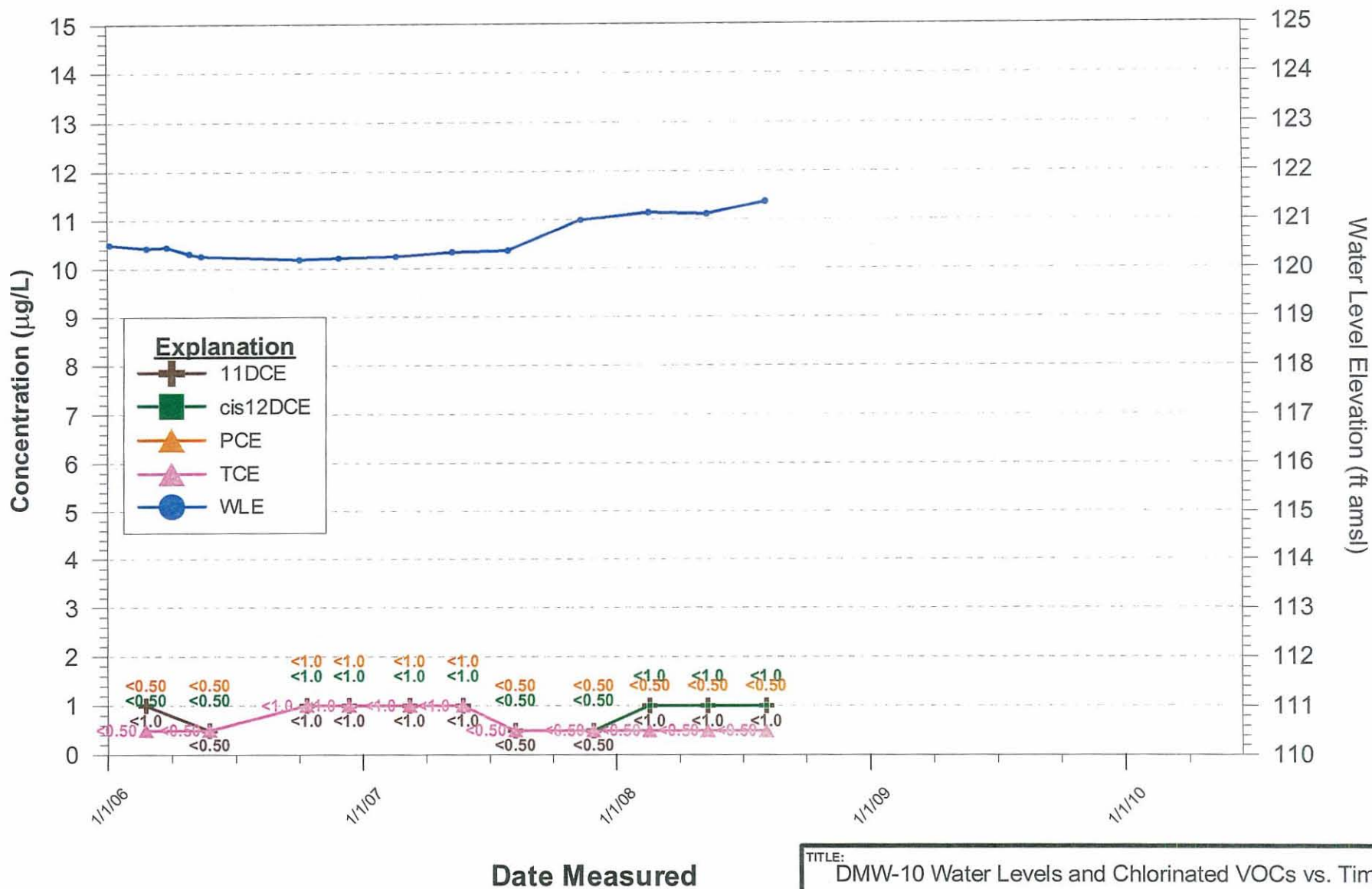
TITLE: DMW-6 Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE



CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-39



Note: VOCs have not been detected in monitoring well DMW-10A since February 2006.

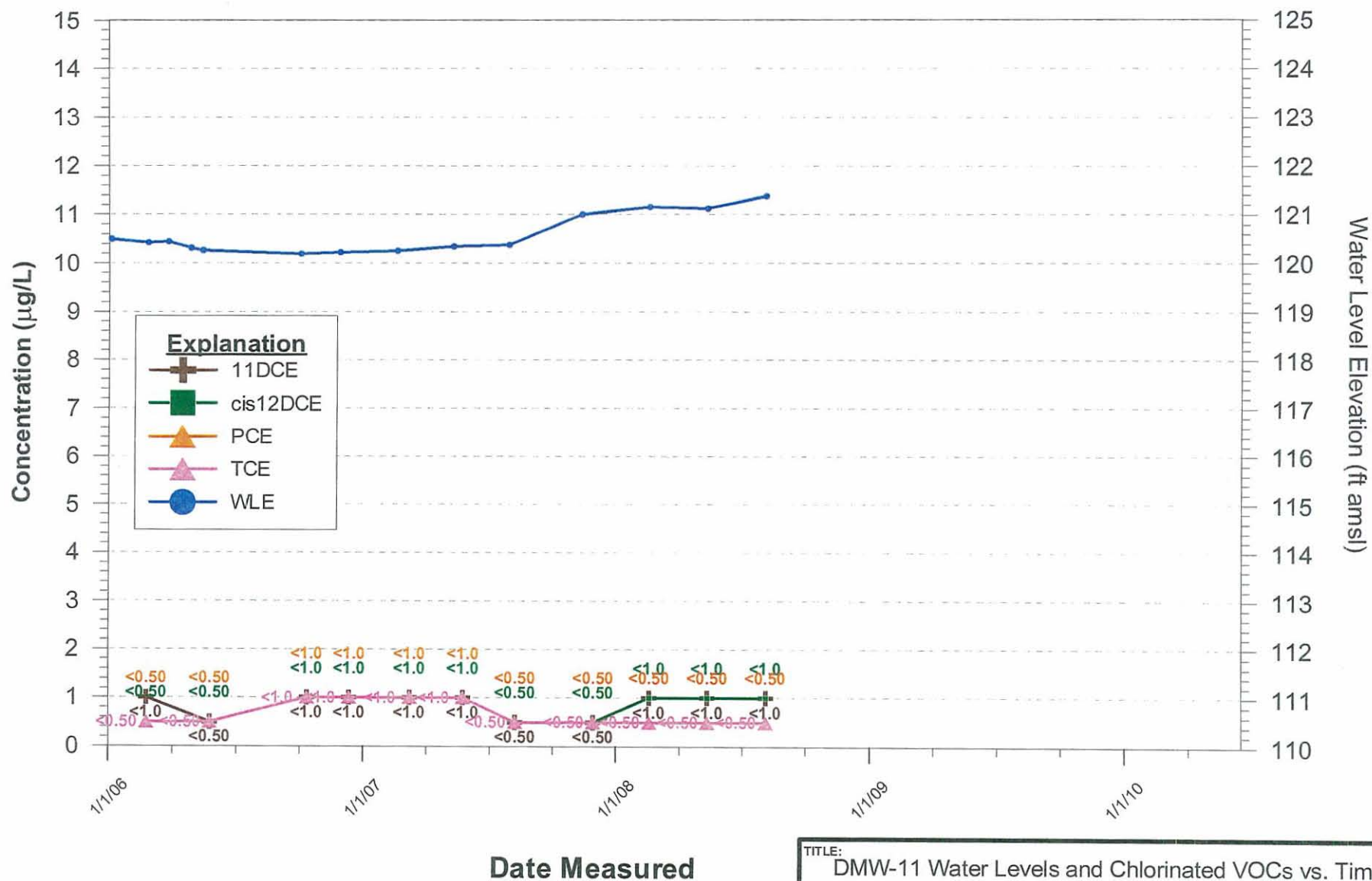
TITLE: DMW-10 Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-40



Note: VOCs have not been detected in monitoring well DMW-11A since February 2006.

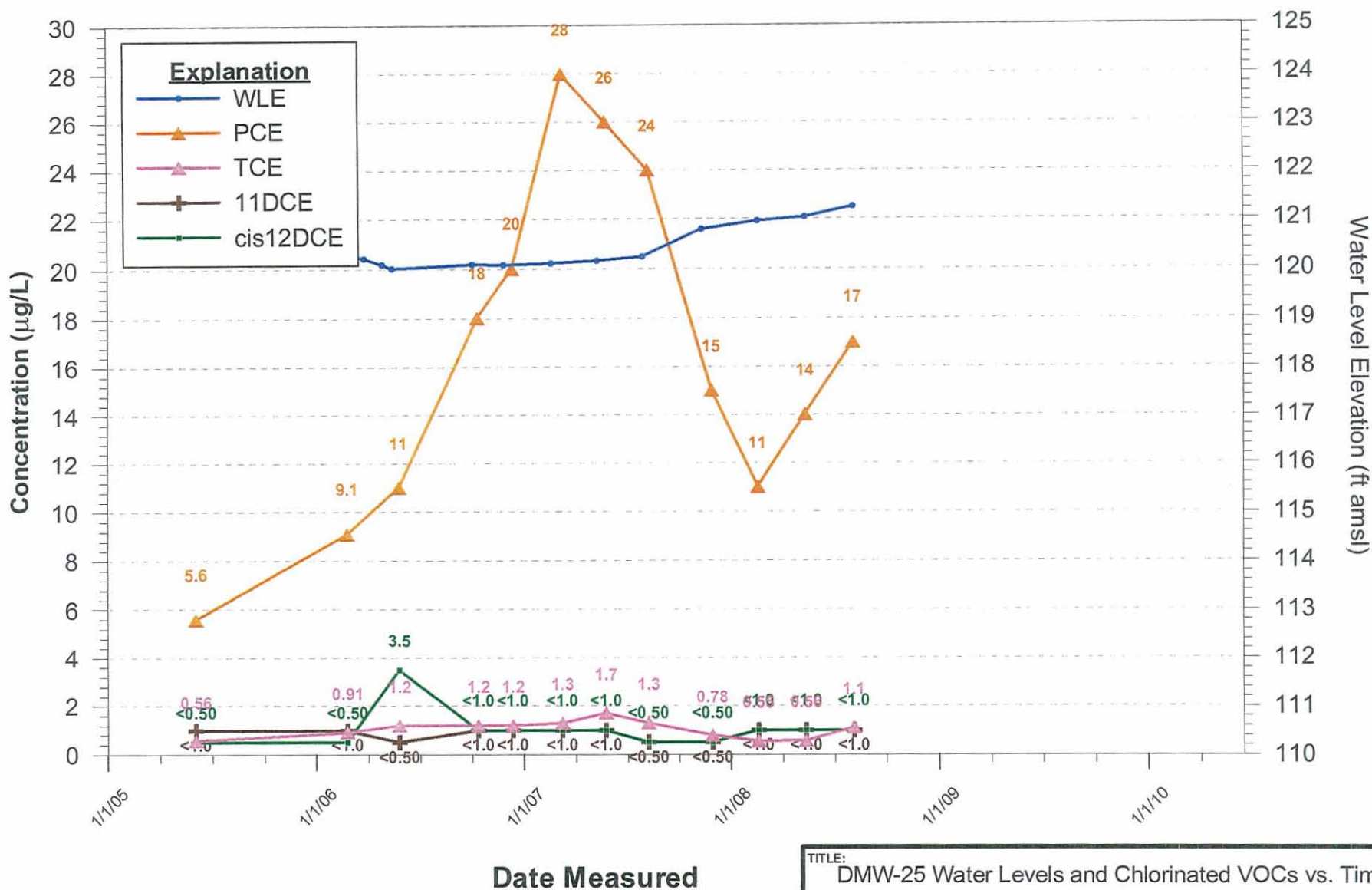
TITLE: DMW-11 Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	MO/JZ
DRAFTED	AG
PROJECT	1303.030
DATE	06/16/10

FIGURE:
I-41



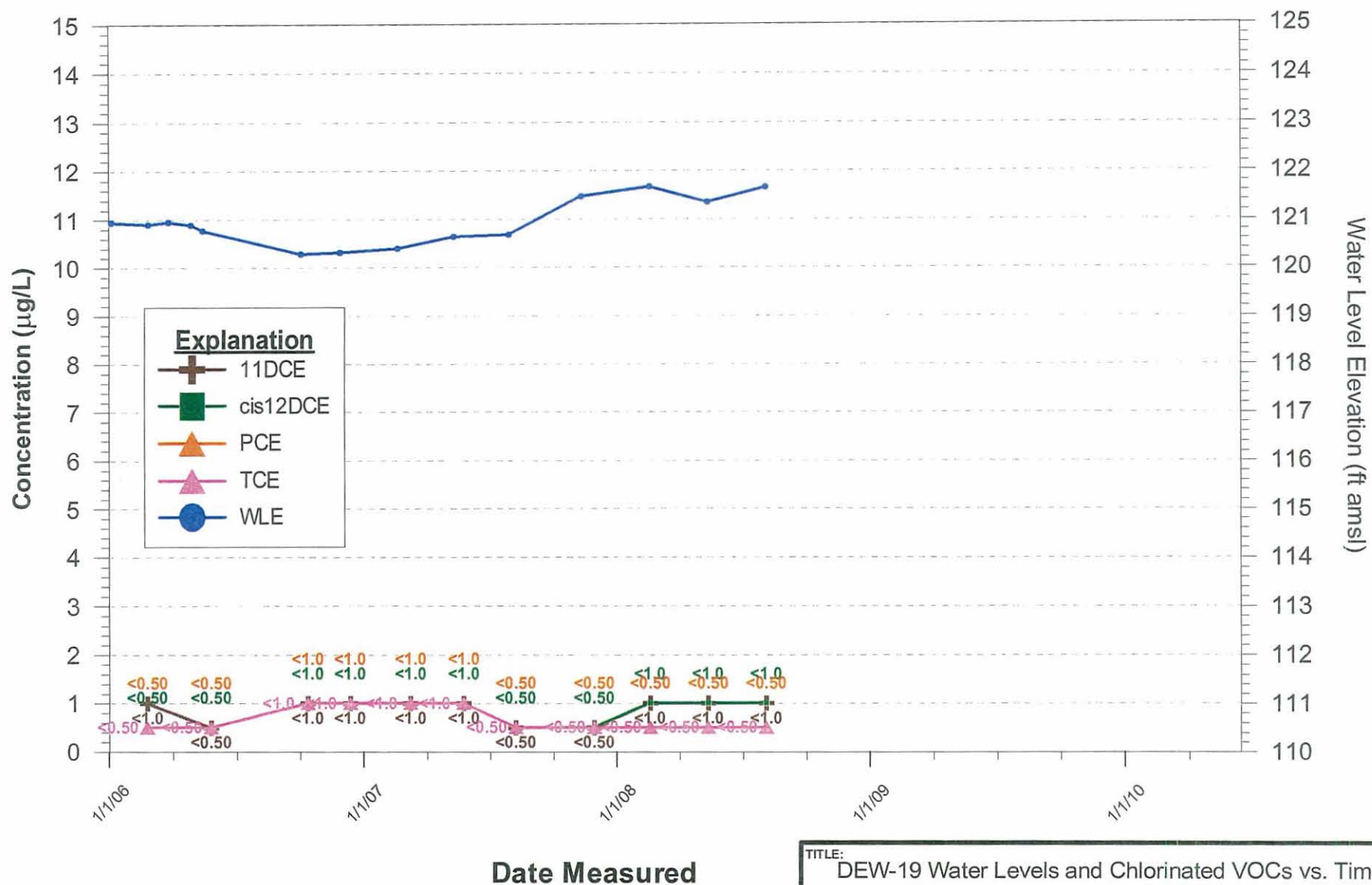
TITLE: DMW-25 Water Levels and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

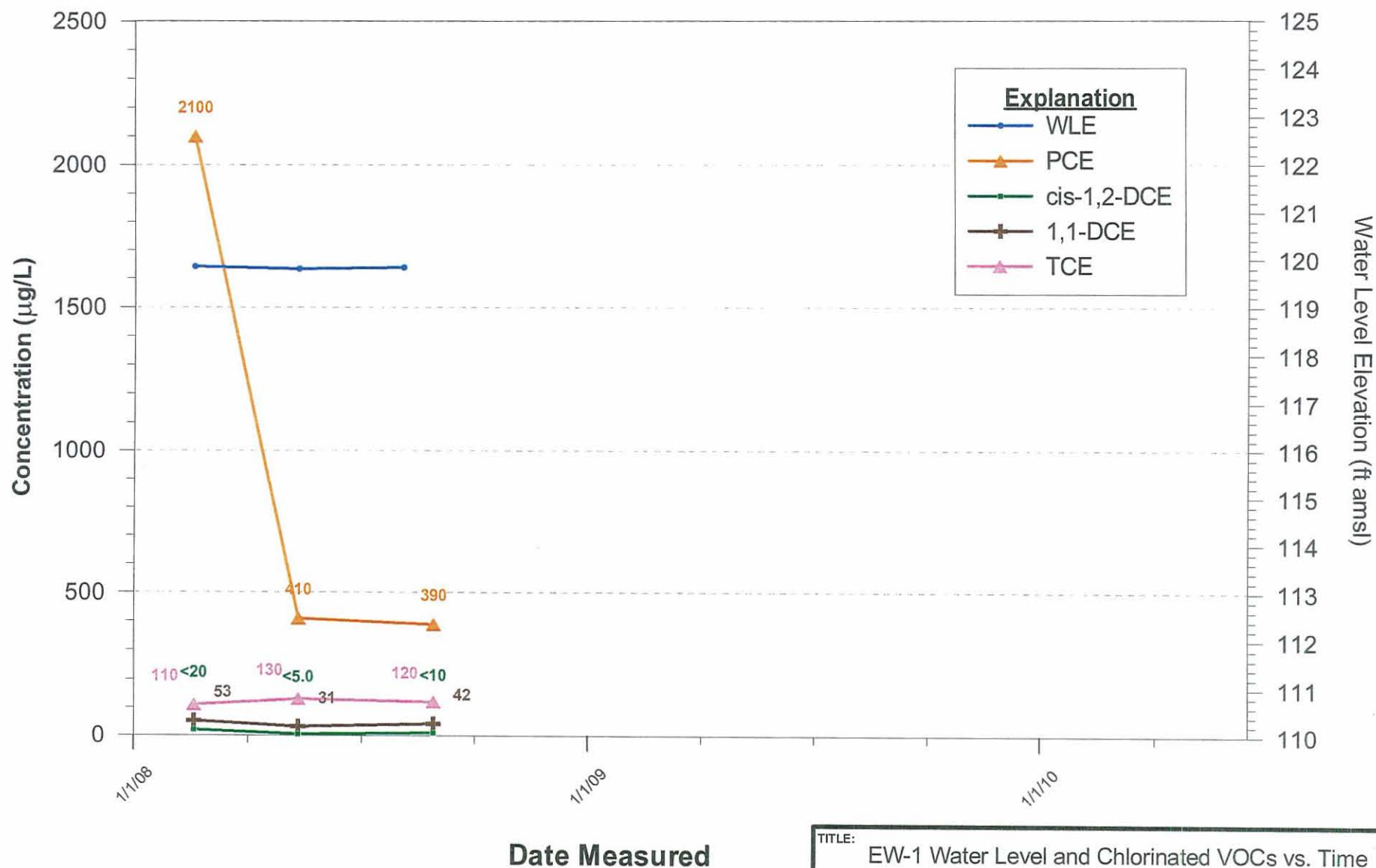
CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/16/10

FIGURE:
I-42



Note: VOCs have not been detected in monitoring well DEW-19A since February 2006.

TITLE: DEW-19 Water Levels and Chlorinated VOCs vs. Time		
CLIENT: YUMA 20TH & FACTOR WQARF SITE		
	CHECKED	JZ
	DRAFTED	MO
	PROJECT	1303.036
	DATE	06/15/10
		FIGURE: I-43



TITLE: EW-1 Water Level and Chlorinated VOCs vs. Time

CLIENT: YUMA 20TH & FACTOR WQARF SITE

GeoTrans, Inc.

CHECKED	JZ
DRAFTED	MO
PROJECT	1303.036
DATE	06/15/10

FIGURE:
I-44

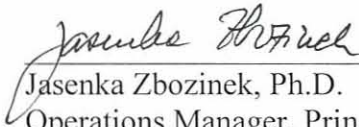
DISTRIBUTION

**Soil Vapor Investigation and Well Installation and Sampling
September 2008 through April 2010
20th and Factor WQARF Site
Yuma, Arizona**

Copy _____

Copies 1-2: Ms. Tina LePage, ADEQ
Copies 3-4: File

Quality Control Reviewer:



Jasenka Zbozinek, Ph.D.
Operations Manager, Principal Engineer

GeoTrans, Inc.

4801 East Washington Street, Suite 260

Phoenix, Arizona 85034

(602) 682-3320

(602) 682-3318 (fax)





W-10100 3.1

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

RIHU02,119

File Index#: W-10100 3.1

DATE: April 8, 2002

TO: 20th and Factor WQARF Site File

THRU: Philip McNeely, Manager *RAM*
Superfund Programs Section

FROM: Scott Goodwin, Hydrologist IV S.G.
Superfund Programs Section

SUBJECT: Rationale for an Early Response Action at the 20th Street and Factor WQARF Site

An early response action (ERA) under the Water Quality Assurance Revolving Fund (WQARF) Program is a remedial action initiated under Arizona Administrative Code (AAC) R18-16-405 prior to selection of a remedy at a site under AAC R18-16-410 and is necessary to:

1. Address current risk to public health, welfare and the environment;
2. Protect or provide a supply of water;
3. Address sources of contamination; or
4. Control or contain contamination where such actions are expected to reduce the scope or cost of the remedy needed at the site.

The purpose of this memorandum is to provide a written rationale to explain how the ERA will address the current risk to the public health, welfare and environment at the site; identify the information used to select the ERA; how that information was considered; and explain how the selected actions were chosen.

Site Background

From 1966 to 1995, Houston Photo Products (HPP) and Houston International, Limited (HIL) were engaged in two operations at the site. HPP/HIL operated a motion picture laboratory under contract with the Yuma Proving Ground as well as a manufacturing facility for the manufacture of photographic film and paper processing equipment for the photo industry. The chemicals that have been used at the facility include standard photographic chemicals, tetrachloroethylene (PCE), and small amounts of various other chemicals. PCE was used for in a heated vapor degreaser for parts cleaning until 1991. HIL moved its motion picture laboratory operation offsite in 1995. The facility is currently occupied by Houston Fearless International (a manufacturer of film processing equipment), a dance studio, a furniture warehouse and personal storage by Mr. Houston. Currently, these operations do not generate wastewater.

The HPP/HIL motion picture laboratory utilized varying amounts of photographic chemicals and water. The wastewater from this process was treated to recover silver. The treated wastewater was disposed in the following three ways: 1) Some of the wastewater was discharged to a 1,000-gallon, concrete, underground sump. When this sump was full, it was discharged to the ground east of the building. Wastewater then flowed onto the adjacent property to the east of the site. 2) Wastewater was used to water plants in landscaped areas in front of the building. 3) Wastewater was discharged to the ground on the southwest portion of the property by a sprinkler system and later to a septic tank in the same area.

In 1978, an employee drained the approximately 15-20 gallons of the "bottom" of the 50 gallon heated vapor degreaser into the wastewater sump. HPP reported a leaking tank to the Arizona Department of Environmental Quality (ADEQ) Underground Storage Tanks (UST) Section in 1990. The ADEQ UST Section referred the facility to the ADEQ Water Pollution Compliance Unit. HIL conducted soil and groundwater investigations under the oversight of the Water Pollution Compliance Unit. In 1993, the ADEQ Hazardous Waste Section (HWS) inspected the facility, and, in 1994, ADEQ HWS issued a compliance order to HIL. PCE was detected in the soil and groundwater during these investigations. PCE was detected in the groundwater over the aquifer water quality standard (AWQS) of 5 micrograms per liter (ug/l). PCE was detected in soils but at concentrations below Arizona Soil Remediation Levels (SRLs). In 1998, the ADEQ Hazardous Waste Section referred the facility to the ADEQ Superfund Programs Section, Site Assessment Unit (SAU).

This site was evaluated for listing on the WQARF Registry by ADEQ staff using the eligibility & evaluation (E&E) form. The site was placed on the WQARF Registry in March 2000 with a score of 31 out of a possible 120.

The 20th Street and Factor Avenue WQARF site is located approximately ½ mile south of 16th Street (U. S. Highway 95) and approximately ¾ mile east of 4th Avenue (Interstate 8 Business Loop) in Yuma, Arizona. The site boundary is a northwest-trending oval extending approximately 1,000 feet from the Houston International facility at 655 E. 20th Street on the southeast to 19th Street and Rail Avenue on the northwest.

The Superfund Program Section (SPS) began site characterization sampling in June 2001. Sampling of the wastewater disposal system and groundwater monitoring wells at the site indicate that in addition to PCE, cyanide is also a contaminant of concern. Potassium ferricyanide and sodium thiocyanate were used in the film development process and discharged on the property. Analyses of wastewater in the sump and septic systems indicate cyanide concentrations as high as 20 milligrams per liter (mg/l) are present in the wastewater disposal system and appear to be continuing sources of groundwater contamination. Cyanide is present above the AWQS of 0.2 mg/l in monitor wells at the site. The concentrations of cyanide and PCE in the wastewater disposal systems are included as Table 1.

Only the wastewater sump could be easily accessed to evaluate the presence of hydrogen cyanide gas. Hydrogen cyanide was present at a concentration of 0.03 milligrams per cubic meter (mg/m³).

TABLE 1
Waste Characterization 20th and Factor WQARF site

Wastewater Disposal System	Est. Size (gallons)	PCE Concentration Sludge (mg/kg)	PCE Concentration Water (ug/l)	Total Cyanide Concentrations Sludge (mg/kg)	Total Cyanide Concentrations Water (mg/l)
WDS #1 (Sump)	1,000 gal	50	None present	2,600	None present
WDS #2 (Septic)	500 gal	Not sampled	15	Not sampled	0.12
WDS #3 (Septic)	unknown	Not sampled	<2.5	Not sampled	<0.05
WDS #4 (Septic)	2,500 gal	0.26	6.4	<2.5	20
WDS #5 (Septic)	2,500	<0.043	<0.5	490	<0.05

Sampling to characterize the extent of cyanide contamination in the soils was completed in October 2001. The highest concentration, 2,000 milligrams per kilogram (mg/kg), of total cyanide was detected in the disposal pond located on the east side of the property. Cyanide contamination is also the deepest in this area, extending to a depth of seven feet below ground surface. Due to overflow from this pond, cyanide contamination extends approximately 175 feet east of the property. Cyanide contamination extends to depth of five feet in this area east of the property. In the southwest portion of the property, cyanide contamination extends to a depth of approximately 2 to 3 feet. Highest total cyanide concentrations in the surface samples collected from the wastewater discharge areas range from 400 to 800 mg/kg.

Analytical methods for cyanides are capable of detecting two types of cyanide compounds. Total cyanide analysis is a measurement of all cyanides including iron cyanide complexes. Free cyanide is a measurement of the simpler cyanides such as sodium cyanide, potassium cyanide and hydrogen cyanide. Analyses of surface samples collected from the areas where cyanide compounds were discharged to the surface also contain one to 76 mg/kg free cyanide. This indicates the potassium ferricyanide and sodium thiocyanate discharged to the surface are degrading to simpler cyanide compounds, probably including hydrogen cyanide. Soil samples collected at depth from the site do not show this analytical evidence of degrading.

In February 2002, to determine if the cyanide compounds were degrading to hydrogen cyanide in the subsurface, four subsurface gas samples were collected from a depth of two to three feet in the areas where cyanide compounds were discharged to the ground surface. No hydrogen cyanide was detected in these samples.

Because there are no established SRLs for potassium ferricyanide and sodium thiocyanate, ADEQ requested a recommendation from the Arizona Department of Health Services (ADHS) for the appropriate SRL for the site. The recommendation from ADHS indicated that the established SRL for sodium cyanide of 2,600 mg/kg residential and 27,000 mg/kg non-residential would be protective of human health if the cyanide group remains bound within the thiocyanate and ferricyanide molecules.

The recommendation goes on to say the problem with applying the sodium cyanide standard to ferricyanide and thiocyanate is that these complexes can form hydrogen cyanide and other cyanide compounds when in solution, even in an environment with a near neutral pH. In addition, ferricyanide and thiocyanate can convert to hydrogen cyanide when exposed to sunlight or ultraviolet radiation.

The recommendation concludes that the SRL for hydrogen cyanide of 11 mg/kg residential or 35 mg/kg non-residential is the most appropriate standard for application at the site if there are no institutional or engineering controls to ensure the residual cyanide stays bound in the thiocyanate and ferricyanide molecules.

Early Response Action Goal

Information published by The Agency for Toxic Substances and Disease Registry (ATSDR) indicates that exposure to cyanide may occur by breathing air, drinking water, touching soil or eating foods containing cyanide. ATSDR also indicates that in air, cyanide is mainly found as gaseous hydrogen cyanide but a small amount is present as fine dust particles.

ATSDR indicated that skin contact with cyanide can produce irritation and sores. Exposure to lower levels of cyanide for a long time may result in breathing difficulties, heart pains, vomiting, blood changes, headaches and enlargement of the thyroid gland. Exposure to high levels of cyanide in the air for a short time harms the brain and heart and may cause coma and death.

The SPS erected temporary fencing around the areas with cyanide contaminated soils in October, 2001. Prior to this time, workers at the furniture warehouse were storing roll-off containers for trash directly on the cyanide contaminated soils. Property owners adjacent to the site were ready to develop their properties and workers at these locations would be exposed directly to the cyanide contaminated soils. Dust blowing from areas of cyanide contaminated soils may expose occupants at the site or properties adjacent to the site to cyanide contaminated soils.

ADEQ determined that a public health hazard may exist when direct contact occurs with the soils at the site. ADEQ determined that action should be taken to prevent exposure to the surface soils at the site. ADEQ also determined that PCE and cyanide contamination in the sumps and septic systems were continuing sources of groundwater contamination and should be removed.

Selection of the Early Response Action

Paving over the surficial soils at the site would not provide an engineering control to ensure the residual cyanide stays bound in the thiocyanate and ferricyanide molecules. Analytical evidence indicates the surficial soils are already degrading to simpler cyanide compounds.

No technology is available to quickly reduce the concentration of the cyanide contaminated soils, wastewater and sludge in place. The SPS evaluated the cost to removal all of the cyanide contaminated soils as well as the PCE and cyanide contaminated wastewater and sludge. These costs were found to be prohibitive for an ERA.

The SPS concluded that removal of the PCE and cyanide wastewater and sludge as well as the cyanide contaminated surface soils would not increase the scope or cost of possible remedies for the site.

Disposal options for the cyanide contaminated waste include disposal in an approved landfill or waste incineration. Due to the estimated volume of soil to be removed, disposal in an approved landfill was the preferred alternative. The wastewater and sludge contains free liquids and cannot be sent to a landfill. The liquid wastes, determined to be hazardous, will be incinerated.

Based on the above information, ADEQ determined the most cost effective approach for an ERA at the site would be:

1) Excavate and disposal of one foot of surface contaminated soils where these cyanide compounds were discharged and show evidence of degrading to simpler cyanide compounds, probably including hydrogen cyanide. A one foot cap of aggregate base coarse material will be placed over remaining cyanide contaminated soils in these areas.

The removal of the surface contaminated soils at the site will address a current risk to the public health by preventing direct exposure to these soils. The installation of one foot of aggregate base coarse material will provide a stable cap to prevent direct exposure to the contaminated soils remaining at the site.

The non-residential SRL, for hydrogen cyanide, 35 mg/kg, will be used as the clean-up level for soils on the site. The SPS selected the residential SRL for hydrogen cyanide, 11 mg/kg, for the properties adjacent to the site to try to prevent environmental use restrictions for property owners not responsible for the contamination.

2) The removal of unused sump and unused septic system and the cleaning of two other septic systems still in use at the property.

The removal of the PCE and cyanide contaminated wastewater and sludge from the wastewater disposal systems will address sources of contamination by removing the remaining source material and reduce continuing sources of groundwater contamination at the site. In addition, hydrogen cyanide has been measured in the one wastewater disposal system that can be easily accessed. It is possible hydrogen cyanide vapors could migrate into the surrounding air or back into the occupied building via wastewater piping from this and other wastewater disposal systems at the site. The removal of the cyanide contaminated wastewater and sludge from the wastewater disposal systems will also address a current risk to the public health by eliminating this potential exposure to hydrogen cyanide.

The planned actions are consistent with A.R.S. 49-282.06(A) which states a remedial action shall:

- 1) assure the protection of public health and welfare and the environment;
- 2) to the extent practicable, provide for the control, management or cleanup of the hazardous substances in order to allow the maximum beneficial use of the waters of the state; and
- 3) be reasonable, necessary, cost-effective and technically feasible.

20th & Factor
Rationale for Early Response Actions
To Meet Requirements of Draft Remedy Rule, A.A.C. R18-16-405(C)

An early response action (ERA) is proposed for the 20th and Factor Water Quality Revolving Fund (WQARF) Registry Site (Site) which is located in Yuma, Arizona. Tetrachloroethene (PCE) was detected in onsite groundwater monitoring wells at levels as high as 20,000 µg/L by the Hazardous Waste Section in 1992. Due to the high detections of PCE, it is probable that PCE is migrating vertically through the extremely permeable aquifer. If left unchecked in its downward migration, the cost of remedial action will increase with time. The focus of the ERA will be to characterize and mitigate the contaminant source evidenced by the previous groundwater sample results. This approach is consistent with the proposed requirements in Arizona Administrative Code (A.A.C.) R18-16-405(A)(1).

To the extent practicable, the ERA will attempt to provide for the management, control, and/or removal of the hazardous substances identified as contaminant sources in soil and/or groundwater at the Site. A reasonable, necessary, cost-effective and technically feasible approach will be selected for the Site. As a result, this action will promote the protection of public health, welfare and the environment by limiting a contaminant source from continuing to contaminate a groundwater resource. This is consistent with Arizona Revised Statute (A.R.S.) 49-282.06 (A) requirements. If the contaminant source is successfully removed, it is likely that PCE levels in groundwater immediately downgradient from the source will decrease, which will presumably reduce the scope and cost of the final remedy for the site.

Limited information currently exists to determine the lateral and vertical extent of the source in either soil or groundwater. Thus, the most appropriate and technically feasible technology necessary to implement the response action cannot be determined without further, limited investigation. Therefore, to satisfy the A.A.C. R18-16-405(B) requirements, a focused investigation must be conducted to adequately characterize the contaminant source. The focused investigation, which will be conducted as part of the ERA, will be limited to the areas of soil and groundwater located within the facility property boundaries that are associated with known contamination and/or suspected contaminant release locations. The goal of the limited investigation will be to adequately characterize the contaminant source, and to provide design data necessary for implementation of the ERA remedy.

Although a Potential Responsible Party (PRP) search has not yet been conducted, there is no current information to suggest that a viable party is available to conduct this work. The party operating at the suspected source area has been recently approved for a Qualified Business Settlement (QBS). Thus, it appears a WQARF-lead ERA is required.

PRELIMINARY ASSESSMENT QUESTIONNAIRE
COMPANY NAME: HOUSTON INTERNATIONAL LTD
APRIL 6, 1994

* If the spaces provided for answering the questions is not adequate, you may attach additional sheets as needed. If a question does not pertain to your facility, please indicate this with "N/A".

1. Company Name HOUSTON INTERNATIONAL, LTD.
Company Representative/contact H. W. Houston, Jr.
Street Address 655 E. 20th Street
City, Zip code Yuma, AZ 85365-2414
Phone Number (602) 782-3677
Property Parcel Number 109-64-033 4
Facility Size (in acres) 3.6 Acres
Standard Industrial Code 3861 No. of Employees 29

2. **Business Ownership History:**

a) Give name of current owner and date acquired.

HOUSTON INTERNATIONAL, LTD.
Acquired 1965.

b) Give names of previous owners and dates of acquisition.

c) Provide a copy of your annual report/corporation commission report.

3. **Property Ownership History:**

a) Give name of current owner, owner's address and phone number, and date of acquisition.

HOUSTON INTERNATIONAL, LTD.
655 E. 20th Street, Yuma, AZ 85365-2414
(602) 782-3677 Acquired 1965

b) Give names of previous owners and dates of acquisition.

INDUSTRIAL PROPERTIES, INC.
Phoenix, AZ
Acquired 1965.

4. How long have you been in operation at your current location?

January 1966.

5. Has your company been located at any other addresses within Arizona? If yes, please list.
6. Describe the nature and purpose of your business.
- Manufacturing.
Photo Lab
7. Describe processes using chemicals at your facility, including amounts used and resulting waste products.
- a) Manufacturing process(es):
- Developing Film - Photo Chemicals - Average
750 Gallons per Month.
Cleaning Stainless Steel-Amway Industroclean (100-150 Gal:
per Year)
- b) Cleaning process(es):
- Dipping Amway Industroclean
M.E.K. - Wiping down Stainless Parts
- c) Maintenance or repair process(es):
- N/A
8. If you have used different chemicals in the past, other than those described in Question #7, list the chemical name, quantity, and the time period in which they were used.
- PCE - 1975-1990 50-100 Gallons per year in
Evaporative Degreaser
9. Describe how chemicals are/were stored on-site. (Type of containers, locations, containment features, inside or outside, on soil or pavement etc.)
- Drums - Outside on Pavement
Inside - Concrete
10. Provide an itemized list of the names and quantities of chemicals stored at your facility and indicate whether you have a Material Safety Data Sheet (MSDS) available.
(please use attached sheet)
- MSDS Sheets on File with ADEQ, Phoenix.
Steve Camp
Hazardous Waste Compliance Officer

11. a) What methods are currently being used to dispose of wastes?
Include name of waste, amount, and method.
Some of the Photo Chemicals are recycled. Those not recycled are mixed with waste water and pumped onto bare ground or used to water plants around building.
- b) If waste production and disposal has changed, list all previous wastes, amounts and methods of disposal.
12. Has your business ever: generated ☒, transported ☐, stored ☐, or disposed ☒ of hazardous materials, mixtures containing hazardous materials, or hazardous wastes? (Please check all that apply.)
13. Has your facility arranged to have hazardous materials transported off site for disposal, recycling, or sale? Yes ☒ No ☐. If yes, what year did you start 1980
Transporter Powers & Hunt Destination San Diego, CA
Currently - Commodity Resource & Environmental, Inc., Mojave, CA
14. Has the company ever had a chemical, solvent and/or hazardous substance spill, leak or release at this location?
Yes ☒ No ☐. If yes, please provide the following:
- a) Chemical name of substance spilled PCE
b) Quantity spilled 15-20 Gallons
c) Date of spill 1978
d) Type of cleanup, if applicable None
e) Regulatory agency involved None
15. Please indicate if your business has any of the following.
☒ Industrial Wastewater Discharge Permit # Applied For
☐ Underground Storage Tank Notification to ADEQ
☒ U.S. Environmental Protection Agency
Generator Identification # AZD983480963 **
☐ Air Pollution Control Permit # _____
☐ Groundwater Quality Protection Permit # _____
- ** Conditionally exempt Small Quantity Generator
16. Do you now or have you ever used any of the following? If you answer yes to using any of the following chemicals, list which years they were used.
- _____ a) Trichloroethylene (TCE)
_____ b) Tetrachloroethylene (PCE)
_____ c) 1,1-dichloroethene (1,1-DCE)
_____ d) 1,1,1-trichloroethane (1,1,1-TCA)
_____ e) 1,1-dichloroethane (1,1-DCA)
1975-1990 f) Perchloroethylene

17. Has your facility been on the sewer system (including domestic waste) since the beginning of occupancy?
Yes [] No [X] If no, when was your facility connected to the sewer system, and how was wastewater and waste disposed of prior to connection?

No Sewer available in this Area.

Waste Water used to water plants/shrubs. Excess run on vacant ground to evaporate.

18. If your facility is currently on the sewer system, are there any pretreatment requirements? Yes [] No [] If yes, please specify.

N/A

19. If you are currently regulated by any environmental agency, (city, county, state, federal) list the name of the agency(s).

ADEQ

20. Which of the following are or were located within the boundaries of your property? (Please check all that apply.)

* Please estimate the amount and type of material disposed of to each of the checked structures; attach any design or construction data you have for the structures indicated. Also please attach copies of analyses of any solid or liquid samples from these structures on your property. In addition, any information you may have regarding structures such as these that may be located on property adjacent to your property would be appreciated.

- [] Wells _____
If yes, provide State Well ID or registration # _____
[] Drywells (Storm Drains) _____
[] Surface Impoundments (Evaporation Ponds) _____
[] Pits _____
[X] Septic tanks 2 - 500 Gallon (Building Rest Rooms) _____
[X] Leach fields 2 - For Septic Tanks _____
[X] Sumps 1 _____
[] Underground Storage Tanks (UST's) _____
[] Above ground storage tanks (including drums) _____
[] Drainage ditches running off the property _____
[] Landfills _____

21. Have you ever had an environmental assessment, environmental audit, or a due diligence search performed on this property?

- a) If yes, list who performed the audit and when, and attach copies.

Foree & Vann

- b) To your knowledge, was there any physical testing performed on the property (i.e. soil gas sampling, soil sampling, groundwater sampling)?

Soil Gas, Soil, Ground Water

22. Do you have any knowledge of any environmental audit or due diligence search that was performed on the property prior to your occupancy?

NO

- a) If yes, who performed the audit, and when?

- b) To your knowledge, was there any physical testing performed on the property?

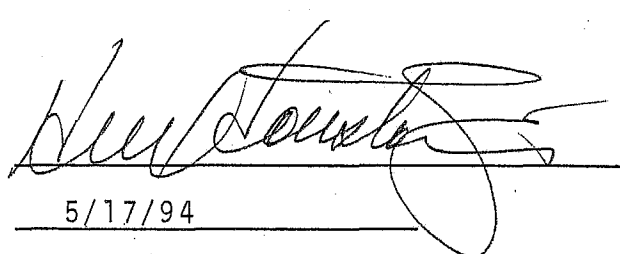
NO

23. To your knowledge, does data exist from physical testing performed at this location? Please include sample reports/results.

24. Attach a diagram of your property. Include property boundaries and size, the location of building structures, and any facilities discussed in Question # 20. Also include the location of chemical storage areas.

See Foree & Vann Report

Signature



Date 5/17/94

DOCKET 595 PAGE 792

STATE OF ARIZONA
COUNTY OF YUMAI hereby certify that the within instrument was filed and recorded
in DOCKET 595, p. 792 and indexed in DEEDS

Fee No. 820

at the request of: Citizens Title

870 JAN 19 PM 4 29

When recorded, mail to:

Houston Photo Products, Inc.
655 E. 2nd St.

Witness my hand and official seal.

CARA N. BETTS County Recorder.

Compared

Photostated

Fee:

Deputy Recorder

Warranty Deed

For the consideration of Ten Dollars, and other valuable considerations, I or we,

INDUSTRIAL PROPERTIES, INC.,
an Arizona corporation

do hereby convey to:

HOUSTON PHOTO PRODUCTS, INC.,
an Arizona corporation

the following real property situated in Yuma County, Arizona:

Part of Section Thirty-four (34), Township Eight (8) South, Range Twenty-three (23)
West, described as follows:Commencing at the Northwest corner of the Southwest quarter of said Section 34,
thence South 89°52'35" East, a distance of 1,458 feet; thence South 0°07'25"
West, a distance of 30 feet to the true point of beginning; thence South 89°52'35"
East, a distance of 25 feet; thence South 0°07'25" West a distance of 300 feet; thence
North 89°52'35" West, a distance of 25 feet; thence North 0°07'25" East, a distance
of 300 feet to the true point of beginning.SUBJECT TO: All Taxes, Assessments, Reservations in Patents and all Easements,
Right of Way, Encumbrances, Covenants, Conditions and Restrictions as may appear
of record.

And I or we do warrant the title against all persons whomsoever, subject to the matters above set forth.

Dated this 6th day of February, 1969.

INDUSTRIAL PROPERTIES, INC.,
an Arizona corporationBY: *[Signature]*

STATE OF

This instrument was acknowledged before me

STATE OF ARIZONA

ss.

COUNTY OF YUMA

On this the _____ day of _____, 1969, before me _____
the undersigned, a Notary Public in and for the County of _____ State of Arizona, personally
appeared James W. Soudriette who acknowledged himself to be the
Vice President of INDUSTRIAL PROPERTIES, INC., an Arizona corporation, and that he
as such officer being authorized so to do, executed the foregoing instrument for the
purposes therein contained by his signing the name of the corporation by himself as
President.

EXHIBIT

Notary Public

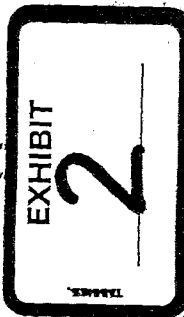
My commission expires:

APR 1969

will expire

Notary Public
John Trust of Yuma

RECORDED: BOOK OF PLATS 7, PAGE 30, DATE: 5-19-75, RESTRICTIONS: DOCKET 859/520



W-10100

1.6.1

ENVIRONMENTAL PROPERTY
EVALUATION
HOUSTON INTERNATIONAL LTD.
YUMA, ARIZONA

WT JOB NO. 7110K083

4/12/90



WESTERN TECHNOLOGIES INC.

The Quality People

**ENVIRONMENTAL PROPERTY
EVALUATION
HOUSTON INTERNATIONAL LTD.
YUMA, ARIZONA**

WT JOB NO. 7110K083

4/12/90



**WESTERN
TECHNOLOGIES
INC.**

The Quality People

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**WESTERN
TECHNOLOGIES
INC.**

P.O. Box 21387 85036
3737 East Broadway Road
Phoenix, Arizona 85040
(602) 437-3737

April 12, 1990

Mr. Herb Houston
Houston International Ltd.
655 East 20th Street
Yuma, Arizona 85366

**RE: ENVIRONMENTAL PROPERTY EVALUATION OF THE HOUSTON INTERNATIONAL LTD.
PROPERTY LOCATED AT 655 EAST 20TH STREET, YUMA, ARIZONA. WT JOB NO. 7110K083.**

Dear Mr. Houston:

Western Technologies Inc. (WT) is pleased to provide this report on the environmental property evaluation conducted for Houston International Ltd. The property is located at 655 East 20th Street, Yuma, Arizona. WT was retained by Mr. Herb Houston of Houston International Ltd. to perform the evaluation.

An on-site property evaluation was conducted on March 21, 1990. The property was visually surveyed to identify and inspect accessible and visible parts of existing structures, solid waste disposal and suspect contaminated areas. Details of the visual survey and a photographic log documenting conditions existing at the time of the survey are presented in this report. It should be noted that, with the exception of asbestos, indoor and outdoor air contaminants were not a part of the survey.

Quantities of chemicals were observed in various locations throughout the property (i.e., drums, bags, boxes, glass, and metal containers). One underground storage tank (UST), used to collect waste from a photograph developing process, is present on the east side of the subject property. Three areas of significant surface staining were observed on the south side of the subject property. This staining appears to be the result of stored chemical spillage and UST waste material being sprayed onto the surface of an unpaved area (see Section 4.1).

Additionally, samples of ceiling texture material from both office buildings were found to contain 2 - 10% Chrysotile asbestos. This asbestos was friable but in good condition.

Houston International Ltd.
Job No. 7110K083

Based on our evaluation of survey information and analytical results, WT recommends that several actions be taken in relation to the subject property. See Section 7.0 of this report for recommendations.

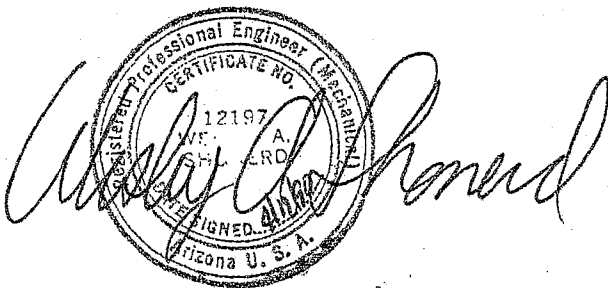
This report concludes WT's services on this project. If you have any questions, or if WT may be of further assistance, please contact us at your earliest convenience at (602) 437-3737.

Sincerely,

WESTERN TECHNOLOGIES INC.



Bruce Campbell
Project Manager
Environmental Engineering Services



Wesley A. Shoner, P.E.
Technical Manager
Environmental Engineering Services

/mb

Attachments

Copies to: Addressee (3)



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FIGURES

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Figure 2

Vicinity Map
Site Plan Drawing

APPENDICES

Appendix A
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Photographic Log
Asbestos Analytical Results



**ENVIRONMENTAL PROPERTY EVALUATION
HOUSTON INTERNATIONAL LTD.
YUMA, ARIZONA**

WT JOB NO. 7110K083

1.0 INTRODUCTION

1.1 GENERAL

This report presents the results of an environmental property evaluation conducted for Houston International Ltd. The property is located at 655 East 20th Street, Yuma, Arizona. WT was retained by Mr. Herb Houston of Houston International Ltd. to perform the evaluation and was authorized to proceed on March 21, 1990. This report completes the work under the terms of our agreement as defined in WT's Proposal No. 7110A083.

1.2 PROJECT OBJECTIVE AND SCOPE OF WORK

The objective of this environmental property evaluation was to survey the potential for hazardous or toxic substance contamination from past or present uses of the site or properties within one-quarter mile. Conclusions and recommendations for further actions in this report are subject to modification if subsequent information is developed by WT or others.

The scope of services for the project included the following activities:

- o On-site survey
- o Asbestos survey
- o Off-site touring of properties within a one-quarter mile radius of the site
- o Regulatory agency and historical records review
- o Written report with conclusions and recommendations.

2.0 SITE INFORMATION

The following site information is based on our on-site observations and records review.

2.1 LOCATION

The subject property is located within Section 34, of Township 8 South, Range 23 West of the Gila and Salt River Baseline and Meridian, Yuma County. The property is located at 655 East 20th Street, Yuma, Arizona (see Figure 1).



The following streets and/or adjacent properties form the boundaries of the subject property:

- o North: 20th Street, a recycling firm, and a tile distributor
- o South: An automotive body shop and vacant land
- o East: Vacant land
- o West: Factor Avenue and Arizona Periodicals warehouse.

2.2 SITE CONDITIONS

The subject property is a four building commercial-tract owned and operated since 1966 by Houston International Ltd. as a photographic film developing and photographic machine manufacturing facility. Structures on-site consist of the following:

MAIN OFFICE BUILDING:

This building is located on the northeast side of the property and houses the administrative offices, photographic developing process, and photographic machine manufacturing area.

Photographic developing chemicals are stored and mixed in two rooms upstairs (see Photograph Nos. 13 - 15). These chemicals are subsequently piped to the developing machines located on the ground floor (see Photograph No. 16). Chemical waste from these machines is piped into a concrete UST located in the parking lot east of the main office building (see Photograph No. 28). The contents of this UST, when full, are pumped out and sprayed onto the surface of an unpaved area located on the south side of the property (see Photograph No. 29). This activity may have resulted in the improper handling and/or disposal of hazardous wastes.

WEST OFFICE BUILDING:

This building is located on the northwest side of the property. The east half of the building is used by the owner as a storage warehouse and touch-up and repair area for small printed circuit boards associated with the photographic machine manufacturing operation (see Photograph No. 31). The west half of the building is leased to Dreamland Bedding and is used as a mattress manufacturing facility.

With the exception of a small amount of adhesive, used by Dreamland Bedding to assemble mattresses, no chemical use was observed in the west office building.



CARPENTER SHOP:

This building, located immediately south of the main office building, is used for manufacturing wood and plastic exterior panels and frames for the photographic machines.

A small amount of adhesive is used in this operation (see Photograph No. 21). Brushes used for spreading the adhesive are cleaned in methyl ethyl ketone (MEK) which is contained in small (1-quart) flameproof cans. According to Mr. Houston, the waste MEK from these cans evaporates.

A hydraulic parts testing and cleaning operation is located inside the east end of this building. The hydraulic testing operation uses ethylene glycol to leak-test parts. One open-top stainless steel tank and one 55-gallon drum of ethylene glycol were observed in this area (see Photograph No. 19). The ethylene glycol is reportedly reused and the only depletion of the supply is the result of a small amount of spillage encountered in the testing process. A small room containing a perchloroethylene (PCE) wash tank, a nitric acid wash tank, and a water rinse tank is also located in this area (see Photograph No. 20). These tanks are drained annually and the wastes from all tanks is spread onto the same soil area as the photographic chemical waste generated in the main office building. This practice could result in the improper handling and/or disposal of hazardous wastes. Drums of unused nitric acid and PCE are stored outside the northeast corner of this building (see Photograph No. 18).

PAINT SHOP:

This building is located immediately west of the carpenter's shop and is used for painting photographic machine assemblies and components. Several shelves of paints and thinners were observed inside this building (see Photograph Nos. 22 and 23). Five 55-gallon drums, stored in a wooden drum cradle, were located adjacent to the paint shop (see Photograph No. 24). One drum was marked Chloroethene VG, three drums were marked MEK. The fifth drum contained lacquer thinner. A stain on the asphalt was observed beneath the drum cradle, suggesting leakage from the drums (see Photograph No. 25).

An area of soil staining was observed on the west side of the paint shop and extends to the south side of the paint and carpenter shops. It is not known if this stain is an extension of the stain beneath the drum cradle or the result of runoff from the area where the UST contents are sprayed.

Material Safety Data Sheets (MSDSs) were available for the chemicals used in the photographic developing process. However, no MSDS sheets were available for the chemicals used in the machine manufacturing and painting processes.

During the on-site survey eight pole-mounted Arizona Public Service transformers were observed (see Photograph Nos. 9 and 10). No leakage was observed on or around these transformers.



2.3 TOPOGRAPHY AND DRAINAGE

The subject property is at an elevation of approximately 200 feet above mean sea level and gradually slopes to the east. Stormwater runoff and drainage appears to follow natural area contours to the east. No surface migration from the stained areas mentioned in Section 2.2 was observed. This suggests that the waste application rate to the stained areas was low enough to allow percolation into the soil before surface runoff could occur.

2.4 GEOLOGY AND GROUNDWATER

Geology and hydrogeology of a site can be of use in assessing the likelihood that material from a leak or spill could migrate, and in which direction migration may occur.

2.4.1 Geology

The area surrounding the subject property lies along the southwest edge of the Sonoran Desert region and east of the Salton Trough region of the Basin and Range province.

The Sonoran Desert region east of Yuma is characterized by a number of subparallel mountain ranges trending north-northwest, and separated by broad desert plains underlain by extensive unconsolidated fill deposits. These mountains and basins are thought to have achieved their present day configuration by middle Tertiary time. Subsequent deformation has involved broad scale warping, with minor normal faulting, probably associated with regional subsidence along the southwest margin of the Sonoran Desert region.

By contrast, the Salton Trough region has been tectonically active to present time, especially in the region west of the Yuma area. This activity is associated with the "San Andreas" fault system. Extensive and wide spread subsidence of the Salton Trough region during Cenozoic time has accumulated as much as 20,000 feet of unconsolidated fill (Blehler and others, 1964). Much of this fill to the south of Yuma consists of alluvial and deltaic deposits of the Colorado River.

2.4.2 Groundwater

The groundwater reservoir in the Yuma area is believed to have been formed by a wide variety of dense crystalline rocks of pre-Tertiary age. These rocks comprise the bordering mountain ranges and contain only small quantities of water in open fractures within a few feet of the land surface and possibly to much greater depths in faults and shear zones. This water occurs as isolated perched bodies near the mountains far above the regional groundwater aquifer.



Overlying these crystalline basement rocks are extensive basin fill deposits of Cenozoic age. Overall thickness of these fill deposits probably exceeds 16,000 feet, but only the upper 2,500 feet is composed of fresh-water bearing alluvial deposits. For this reason, the primary groundwater aquifer has been split into three distinct stratigraphic units: 1) the older alluvium; 2) the younger alluvium; and 3) the windblown sand. The areas of most intensive present and most probable future use - the upper part of the reservoir - have been subdivided into three zones, two of which cross stratigraphic boundaries:

- o Upper, fine grain zone - consisting of windblown sands and younger alluvium
- o Coarse, gravel zone - consisting of basal gravel and older alluvium
- o Wedge zone - consisting of coarse gravels

The upper, fine-grain zone is comprised of the younger alluvium, the upper portions of the older alluvium and the relatively minor deposits of windblown sand. Although only minor amounts of groundwater is produced from these fine-grain deposits, this zone is hydrologically significant because most of the groundwater recharge within the Yuma area takes place through it. This zone generally ranges in thickness from about 70 - 240 feet, averaging about 100 feet beneath the valley and 170 - 180 feet beneath the Yuma Mesa. Sand and silt are the most abundant materials, although deposits of silty sand, clay, and sandy gravel are extensive in places. The groundwater in the area of the subject property lies approximately 80 feet below the existing land surface.

The coarse-gravel zone is comprised of the upper portion of the older alluvium and locally encompasses the basal portions of the younger alluvium. This zone is considered the most permeable of the three zones, and is recognized as the principal groundwater aquifer in the Yuma area. The coarse-gravel zone averages about 100 feet in thickness beneath the valley and dips gently to the southwest. A complex group of interrelated gravel bodies of varying ages comprises this intermediate zone.

The wedge or basal zone constitutes the major portion of the water-bearing deposits of Pliocene to Holocene age beneath the river valley and Yuma Mesa. This zone extends to a depth of 2,500 feet to the south of Yuma and "wedged" out beneath the coarse-gravel deposit to the northeast and southwest. The upper portions of the wedge zone are comprised of coarse gravel deposits with interbedded lens of sandy silts and/or sandy clays.



3.0 RECORDS REVIEW

During the literature search, records were reviewed at or obtained from the following agencies and companies.

- o Arizona Department of Environmental Quality
- o Arizona Department of Water Resources
- o U. S. Environmental Protection Agency, Region 9
- o Arizona Public Service
- o Landis Aerial Survey/U.S. Geological Survey

The purpose of the review was to identify regulatory violations involving hazardous or toxic materials at the site or surrounding properties, and to assess the potential for hazardous materials from previous on-site and nearby activities. The results of the review are discussed in the following sections.

3.1 ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ)

ADEQ's Hazardous Waste Compliance Unit has listed facilities that have undergone a Resource Conservation and Recovery Act (RCRA) inspection or compliance action for potential violations of the Arizona State Hazardous Waste Management Act.

There are no past or current hazardous waste compliance actions located on or within a one-quarter mile radius of the subject property.

The ADEQ 1988-1989 Annual Water Quality Assurance Revolving Fund (WQARF) Project Priority list was reviewed to determine if the subject property lies within the boundaries of an existing or proposed WQARF project. The WQARF program is the State of Arizona equivalent to the federal Superfund program (CERCLA).

A review of the project priority list revealed that the subject property does not currently lie within the boundaries of an existing or proposed WQARF study area.

The 1987 Annual Report on Arizona Groundwater Quality Sampling Results & Enforcement Actions, prepared by ADEQ, dated January 1, 1988, was reviewed to determine the groundwater quality beneath the subject property and the study area.

The 1988 Annual Report on Arizona Groundwater Quality Sampling Results & Enforcement Actions, prepared by ADEQ, dated June 30, 1989, was also reviewed to determine the groundwater quality beneath the subject property and within the study area.



These reports did not contain sufficient data to adequately define the groundwater quality beneath or within a one-quarter mile radius of the subject property.

The Arizona Hazardous Waste Treatment Storage and Disposal Facilities list, which is maintained by the ADEQ Hazardous Waste Permits Unit, identifies: those facilities that have obtained either a final or an interim status permit for the treatment, storage, or disposal (TSD) of hazardous wastes and those facilities operating without a permit.

This list did not reveal the presence of any TSD facilities located on or within a one-quarter mile radius of the subject property.

The Arizona CERCLA Information and Data System (ACIDS) is a list maintained by the ADEQ Office of Waste Programs which contain locations subject to environmental contamination investigation by ADEQ. The inclusion of a particular facility on this list does not necessarily mean that the location is contaminated, is causing contamination, or is in violation of state or federal statutes and regulations. This list implies that due to the nature of activities conducted at these locations, the potential for the previously mentioned conditions exist.

Our review of this list did not reveal any facilities located within a one-quarter mile radius of the subject property.

3.2 ARIZONA PUBLIC SERVICE (APS)

Electric power is supplied to the property by Arizona Public Service (APS). During the survey, eight APS pole-mounted transformers were observed on-site (see Photograph Nos. 9 and 10). The transformers appeared to be in good condition and no visible signs of leakage were evident.

In a telephone conversation, Mr. Tom Thompson of APS stated that a survey of company owned transformers was conducted by APS. During the survey, 20,000 APS owned transformers were sampled and analyzed for PCB content. The analytical results indicated less than 1/2 of 1% of the transformers exceeded 500 parts per million (ppm) PCBs.

APS does not utilize an exterior numbering system to identify PCB-contaminated transformers. PCB content of the transformers could not be determined. Therefore, the transformers are assumed to be PCB-contaminated (50 - 500 ppm PCBs).

APS accepts all responsibility for its transformers including maintenance and contaminant remediation of any leaking transformers.



3.3 U.S. ENVIRONMENTAL PROTECTION AGENCY

The RCRA database, maintained by EPA, lists facilities in Arizona that have notified EPA of hazardous waste activity. The notifiers may engage in the generation, transportation, treatment, storage, and/or disposal of hazardous wastes.

Our review of this database found one notifier located within a one-quarter mile radius of the subject property. This notifier is FMC Agrichemical located at 2075 Factor Avenue.

The \$1.6 billion federal Superfund was authorized to finance the cleanup of abandoned dump sites throughout the United States. A computer database of abandoned or inactive facilities -- the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) -- has been developed to support CERCLA activities. After a potential site is discovered by the EPA, it is entered into the database and a preliminary site assessment is done. If warranted, a site investigation is performed after which a site can be proposed for remediation and placed on the National Priorities List (NPL).

No abandoned or inactive hazardous dump sites listed in the CERCLIS database are located on or adjacent to the subject property.

3.4 LANDIS AERIAL SURVEY/U.S. GEOLOGICAL SURVEY (USGS)

Aerial photographs from Landis Aerial Survey and topographical maps from the U.S. Geological Survey (USGS) were reviewed to identify past uses and characteristics of the subject property.

The Yuma East Quadrangle topographical map from the USGS, dated 1965 and photorevised in 1979, was reviewed. The 1965 topographic map depicts three buildings on the subject property. The 1979 revision did not depict any significant changes when compared to the 1965 topographical map.

Aerial photographs from Landis Aerial Survey were reviewed. A brief description of each photograph and its corresponding date follows:

1966 - This photograph shows:

- o The main office building and paint room are the only structures present at property
- o 20th Street unpaved
- o Factor Avenue not present
- o Surrounding area as native desert.



1970 - This photograph shows:

- o West office building under construction on property
- o 20th Street paved and Factor Avenue graded
- o Carpenter shop present on property
- o Dark stained area immediately east of property. This stain appears to originate from the subject property.

1973 - This photograph shows:

- o All four buildings complete on subject property
- o Dark stained area east of property remains present.

1980 - This photograph shows:

- o Structures present to the south of property
- o Factor Avenue paved
- o Dark stained area to east of property remains present
- o No significant change to subject property.

1984 - This photograph shows:

- o Stained area to the east of property is significantly smaller than previously noted in the 1970, 1973, and 1980 photographs
- o No other significant changes to subject property or surrounding area.

1988 - This photograph shows:

- o The stained area shown in prior photographs is not shown in this photograph
- o The subject property and surrounding area essentially as it appears today.

Note: The aerial photographs viewed for this report were high-level prints and therefore site-specific detail other than the presence or absence of structures was difficult. The surface staining to the east was quite clear. This suggests that this stain was very large. However, the on-site surface staining mentioned in Section 2.2 of this report was not apparent in the aerial photographs.



4.0 POTENTIAL SOURCES OF CONTAMINATION

4.1 AREAS WITH VISIBLE SURFACE STAINING

During the on-site review the subject property was surveyed for visible signs of surface staining from the intentional or accidental release or disposal of hazardous or toxic materials.

Three areas of surface staining were observed on the subject property. These areas were: a large soil stain on the south side of the subject property where the contents of the on-site UST are sprayed; a section of asphalt under the drum cradle adjacent to the paint shop; and the areas of soil immediately west and south of the paint shop extending east to the south side of the carpenter shop.

4.2 ADEQ UNDERGROUND STORAGE TANK (UST)

The ADEQ Underground Storage Tank (UST) list was reviewed to identify the location and number of any registered USTs within a one-quarter mile radius of the site.

This list identified one registered UST within a one-quarter mile radius of the subject property. This UST is registered to Mesa Beverage Company located at 598 East 20th Street. One UST, located on the subject property, was not found to be registered.

4.2.1 Leaking Underground Storage Tank (LUST)

The ADEQ Leaking Underground Storage Tank (LUST) Incident file was reviewed to determine if any of the registered USTs listed in Section 4.2 were found to be leaking.

A review of this document revealed no leaking USTs within a one-quarter mile radius of the subject property.

4.3 DRYWELLS

The ADEQ Drywell Registration list was reviewed to identify any registered drywells located on the subject property.

This list did not identify any registered drywells located on the subject property. Additionally, during the survey, no drywells were observed on-site.



5.0 ASBESTOS SURVEY

During the on-site tour, a preliminary asbestos survey of the buildings located on the property was performed by a certified asbestos inspector (CAI). The purpose of this preliminary survey was to identify readily visible, suspect asbestos-containing building materials (ACBMs). Prior to the late 1970's, asbestos was a common constituent of a wide variety of materials and products used in building construction. Often asbestos, usually Chrysotile, was specified in the design of commercial and public buildings. Typical interior building materials that often contain asbestos include wallboard, thermal system insulation, acoustical ceilings, and non-ceramic floor coverings.

5.1 OBSERVATIONS

Materials used for the construction of the two office buildings consisted of metal outer walls, fiberglass insulation, and plaster drywall interior walls. The flooring material in the office areas of the facility consisted of carpet and vinyl tile. The ceilings in the offices, were covered with a texture surfacing material. The carpenter and paint shops were constructed of block and were not insulated, and the ceilings were not textured.

The on-site survey and bulk material sampling was completed by WT during the property evaluation. Samples of each type of suspected ACBM were transported to WT's EPA-certified laboratory for analysis of asbestos content and type.

5.2 SUSPECT ACBMs

Six areas of suspect ACBMs were sampled from the office buildings. The samples were secured in plastic containers and marked for identification. The sampling locations were logged and noted on WT chain-of-custody forms. Analytical results are presented below.

<u>Sample ID</u>	<u>Type and Location</u>	<u>Results</u>	<u>Friable/ Non-Friable</u>
HH-1	Ceiling texture material-Main Office	2-5% Chrysotile	Friable
HH-2	Floor tile-Main Office Mastic-Main Office	30% Chrysotile 15% Chrysotile	Non-Friable Non-Friable
HH-3	Ceiling texture material-West Office	10% Chrysotile	Friable
HH-4	Floor tile-West Office	15% Chrysotile	Non-Friable
HH-5	Wall accoutical tile-Main Office	Negative	N/A
HH-6	Floor tile-Second Floor/Main Office	Negative	N/A



The definition of friable asbestos in 40 CFR 61, Subpart M is: "any material containing more than 1 percent asbestos by weight, that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure".

The asbestos found in the ceiling texture material in both office buildings was found to be friable, but in good condition. Damage and/or deterioration of the ACMs may result in the release of asbestos fibers.

The asbestos found in the floor tile and mastic samples was non-friable. As a non-friable ACM, the potential for disturbance is low. However, if the material was damaged or disturbed it could result in a release of asbestos fibers.

Regulations presently in effect require notification to the local County Air Pollution Control District when identified ACM is removed or damaged during renovation or demolition.

6.0 FINDINGS AND CONCLUSIONS

The following conclusions are based on our records review and on-site and off-site evaluations.

- o The subject property is a developed commercial property comprised of four buildings.
- o The topography of the property is essentially level with surface runoff draining to the northeast.
- o Depth to groundwater in the area is approximately 80 feet below land surface.
- o During the survey, evidence of one on-site UST was observed.
- o Asbestos was found in the ceiling texture material in the office buildings. This asbestos was friable but in good condition. Additionally, non-friable asbestos was found in the vinyl floor tile and mastic sampled in the office buildings. As a non-friable ACM, the potential for disturbance is low. However, if the material was damaged or disturbed it could result in release of asbestos fibers.
- o Insufficient data exists to adequately characterize groundwater quality beneath the subject property.
- o The subject property is not located within any existing or proposed WQARF study/project areas.
- o APS accepts all responsibility for the remediation and repair of its transformers.
- o Evidence of potential improper storage and disposal of hazardous waste was observed on the subject property.



- o Three areas of surface staining were observed on the subject property. These were: A large soil area on the south side of the subject property where the contents of the on-site UST are sprayed; a section of asphalt under the drum cradle adjacent to the paint shop; and the areas of soil immediately west and south of the paint shop extending east to the south side of the carpenter shop.

7.0 RECOMMENDATIONS

Based on the results of our studies and evaluations, WT recommends the following:

- o Perform an assessment and audit of chemical storage, use, and disposal procedures and applicable environmental regulations.
- o The areas of soil staining should be sampled and analyzed to identify the nature and extent of contamination.
- o Subsurface investigation of the soil surrounding the concrete UST should be performed to determine the nature and extent of contamination, if any.
- o Sample and analyze the UST to determine if the contents meet the criteria of a hazardous waste.
- o Register the on-site UST with ADEQ in accordance with applicable regulations.
- o Sample and analyze the three wash tanks in the carpenter shop to determine if the contents meet the criteria of a hazardous waste.

Friable ACBM is contained in ceiling surfacing material observed in the two office buildings. Although the ACBMs observed were in good condition, future damage and/or deterioration may result in the release of asbestos fibers and may pose an exposure risk to building occupants. WT recommends the following for managing the asbestos in the two office buildings:

- o Perform a survey of the feasibility of removing friable asbestos material.
- o If any future need for removal or renovation of the asbestos-containing materials involved more than 160 square feet, then the National Emission Standards for Hazardous Air Pollutants (NESHAPS) Asbestos Regulations, and Occupational Health and Safety Administration (OSHA) Regulations for asbestos abatement projects may apply.
- o Notify contractors prior to renovation or demolition affecting friable asbestos, review applicability of EPA regulations and follow as needed (Required by EPA).
- o Instruct employees to use OSHA work practices for small scale, short duration asbestos renovation, and maintenance activities as given in 29 CFR 1926.58.
- o Sample and analyze airborne asbestos fiber concentration in the building to confirm that levels are similar to the outside air.



8.0 EPE LIMITATIONS

The scope of evaluation is limited to: observations made during the on-site review; interviews with knowledgeable persons; public agency and public utility company personnel; and reviews of readily available published and unpublished reports, literature, and aerial photographs. As a result, these conclusions are based on information supplied by others, professional expertise, and interpretations by qualified personnel.

The focus of the site evaluation was to assess the likelihood of hazardous or toxic substance contamination resulting from past and current uses of the site and adjacent properties. As a result, this evaluation does not highlight the presence of the following conditions unless they were the express concerns of contacted personnel, report and literature authors, or the work scope.

- o Naturally occurring toxic and hazardous substances in the subsurface soils, rock and water.
- o Toxicity of substances common in current habitable environments, such as stored household product, building materials, and consumables.
- o Contaminants or contaminant concentrations that are not a concern now but may be under future regulatory standards.

We are unable to predict events that may occur after our site visit, such as illegal disposal or accidental spillage.

There is no evaluation which is thorough enough to absolutely exclude the presence of hazardous substances at any site. Therefore, if none are identified as part of a limited scope of work, such a conclusion should not be construed as a guaranteed absence of such materials; it is merely the result of the evaluation.

We have performed our services for this project in accordance with our agreement and understanding with Houston International Ltd. This document and the information contained herein have been prepared solely for the use of Houston International Ltd and their assigned parties.

This environmental property evaluation was performed by WT under a limited scope of services per our agreement. It is possible despite the use of reasonable care and interpretation, WT may have failed to identify regulatory violations or the presence of hazardous substances or underground tanks. WT assumes no responsibility for conditions that we did not specifically evaluate or conditions that were not generally recognized as environmentally unacceptable at the time this report was prepared.



Environmental Property Evaluation

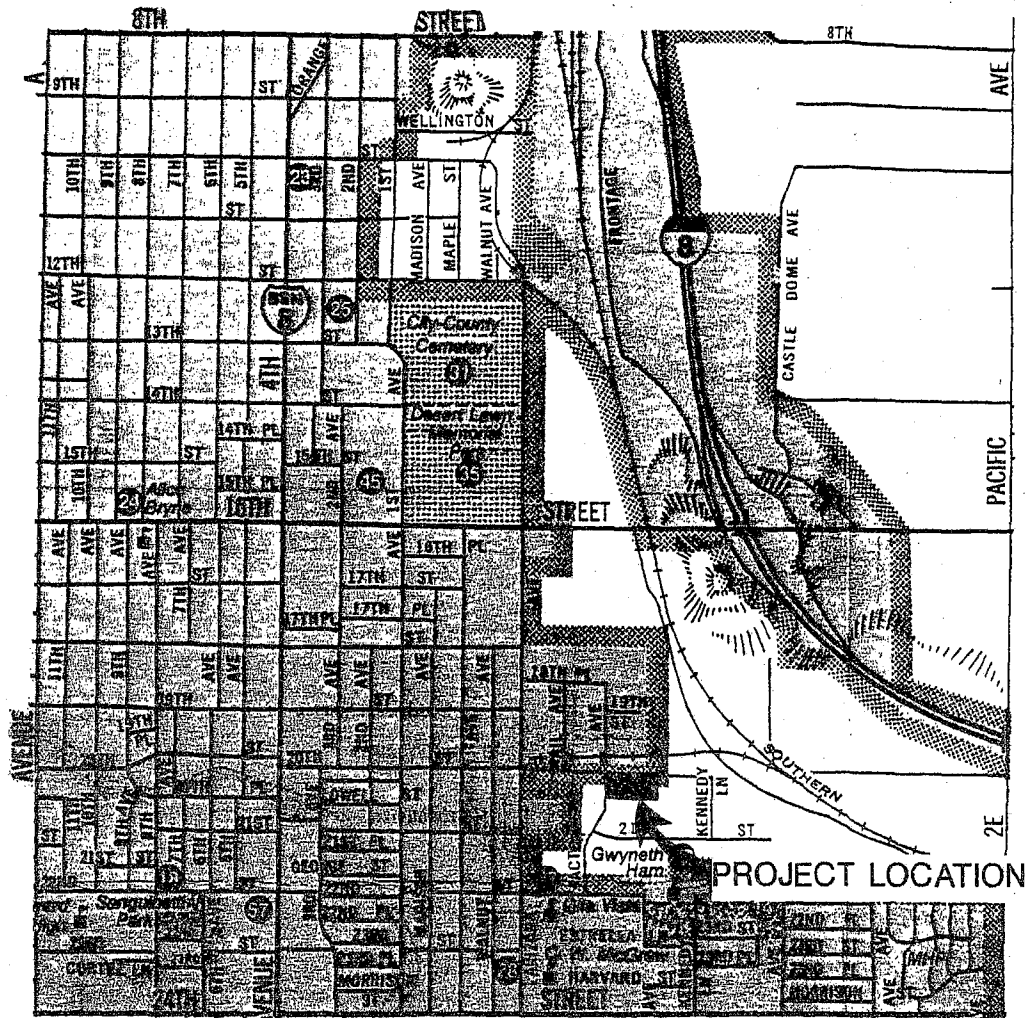
Houston International Limited

655 East 20th Street

Yuma, Arizona

Vicinity Map

Figure 1



NOT TO SCALE

JOB NO. 7110K083

REVIEWED	W. Shonerd P.E.
PREPARED	T. Chapman

WESTERN TECHNOLOGIES INC.
The Quality People

TFDEQP000610

Environmental Property Evaluation

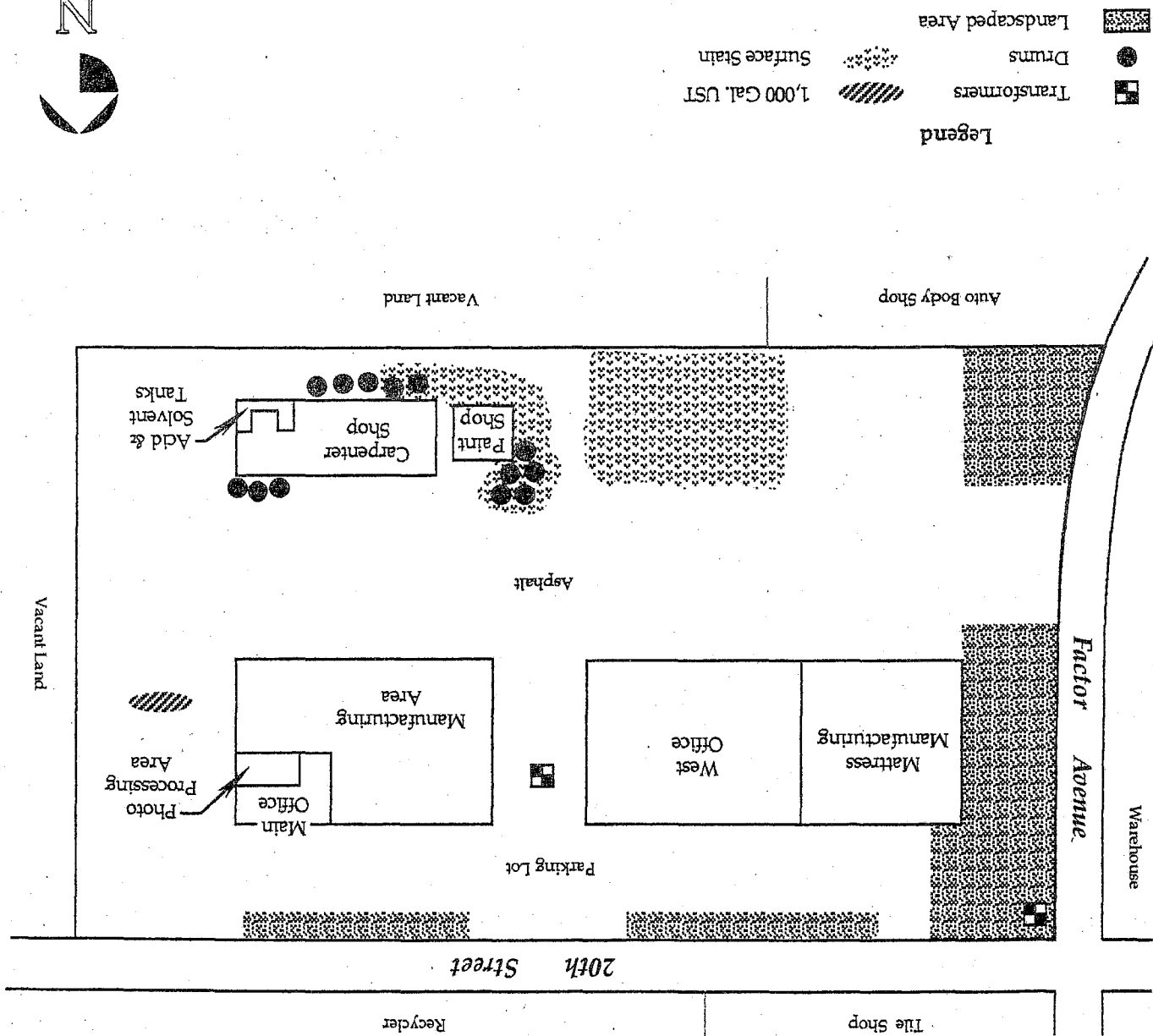
Houston International Limited

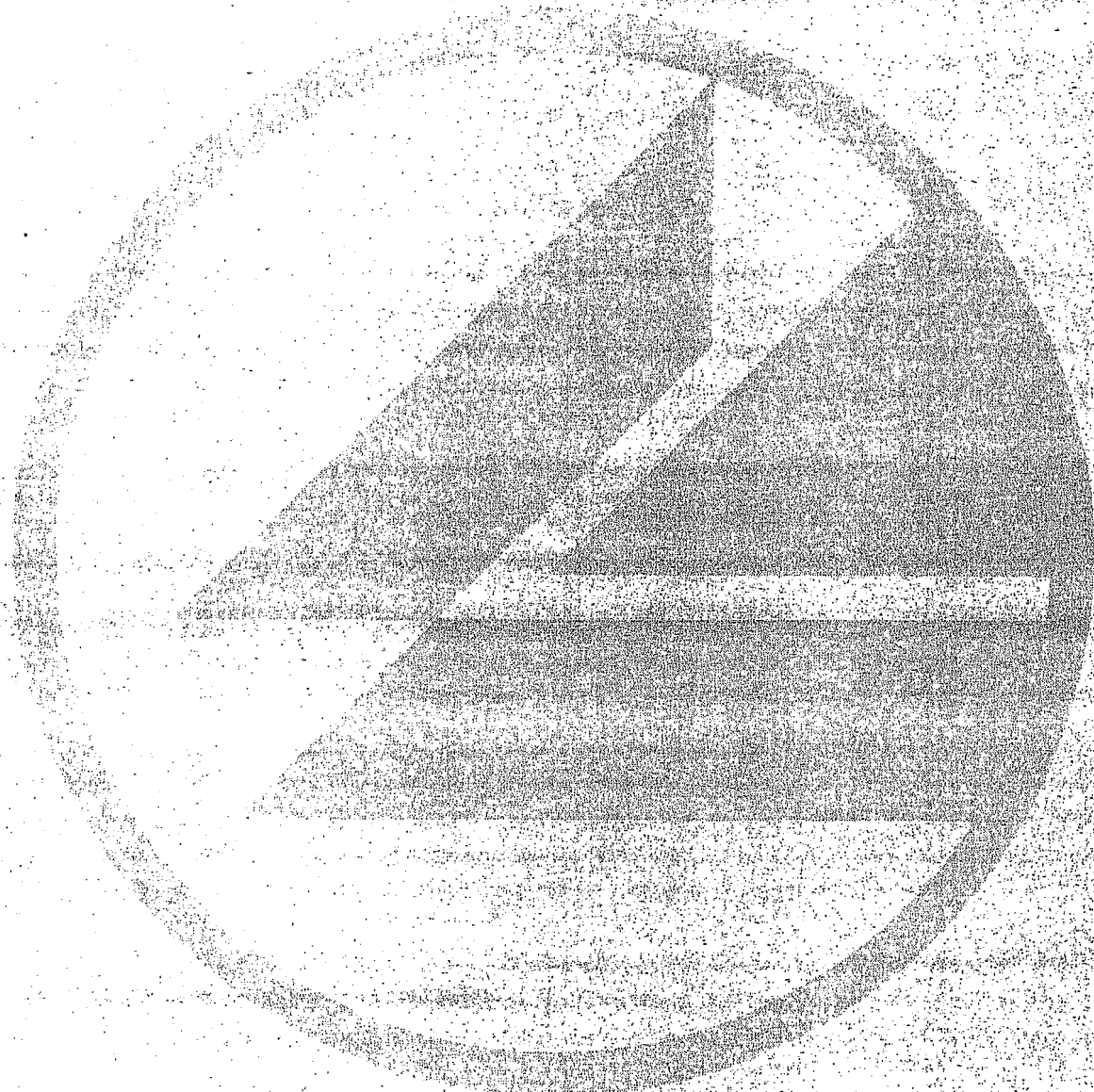
655 East 20th Street

Yuma, Arizona

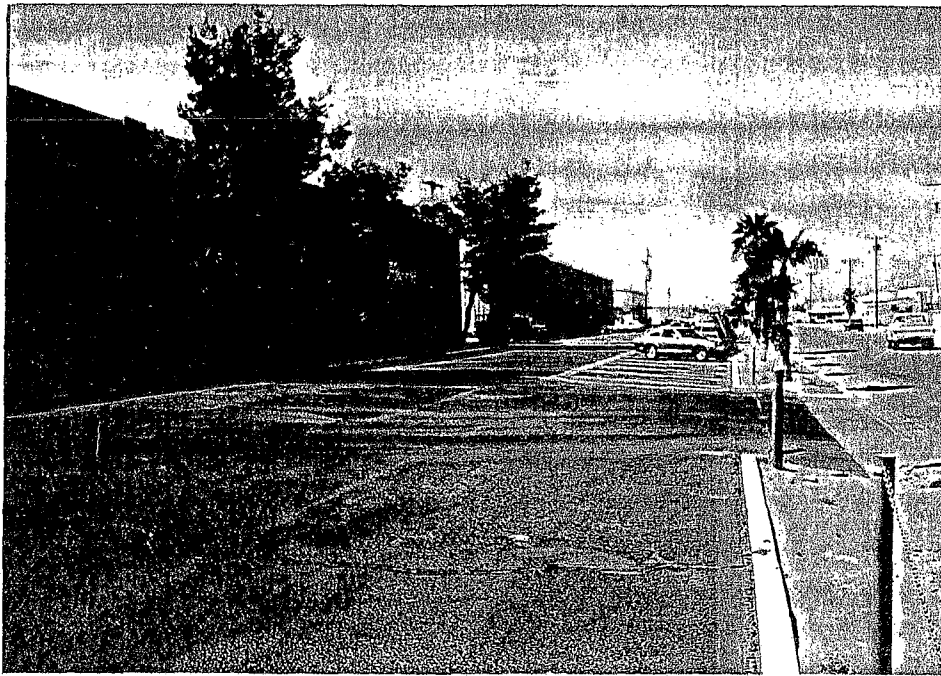
Site Plan

Figure 2

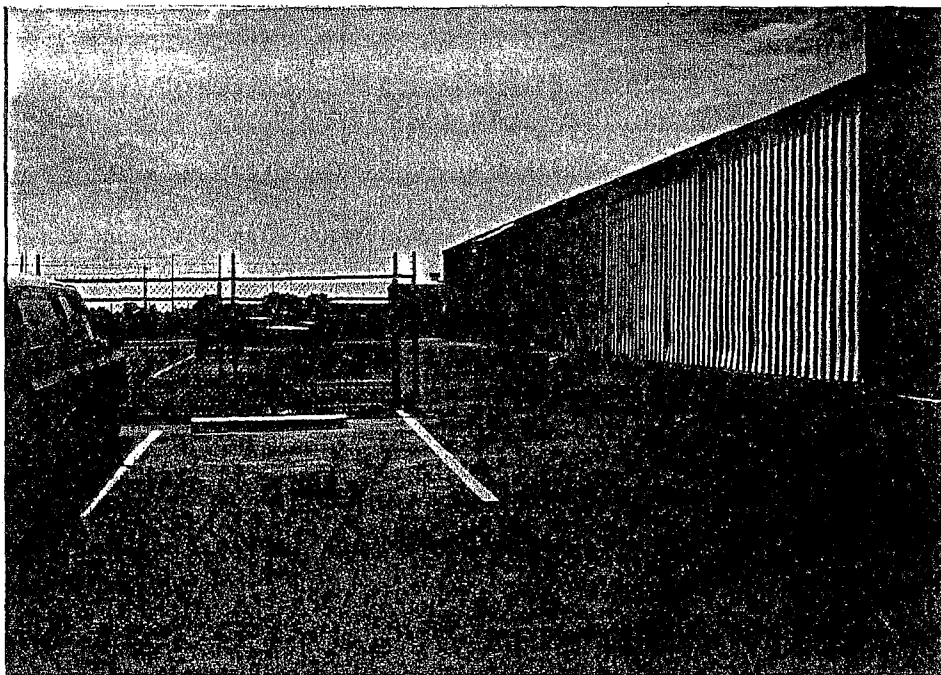




Houston International Ltd.
Job No. 7110K083



Photograph No. 1
Northeast Corner of Subject Property Viewing West.



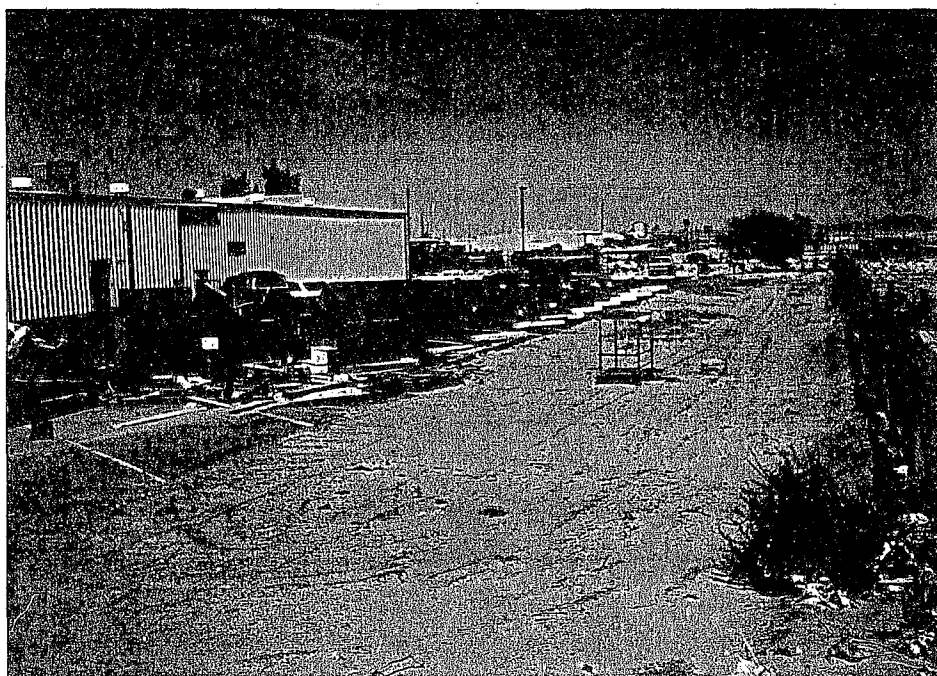
Photograph No. 2
Northeast Corner of Subject Property Viewing South.



Houston International Ltd.
Job No. 7110K083



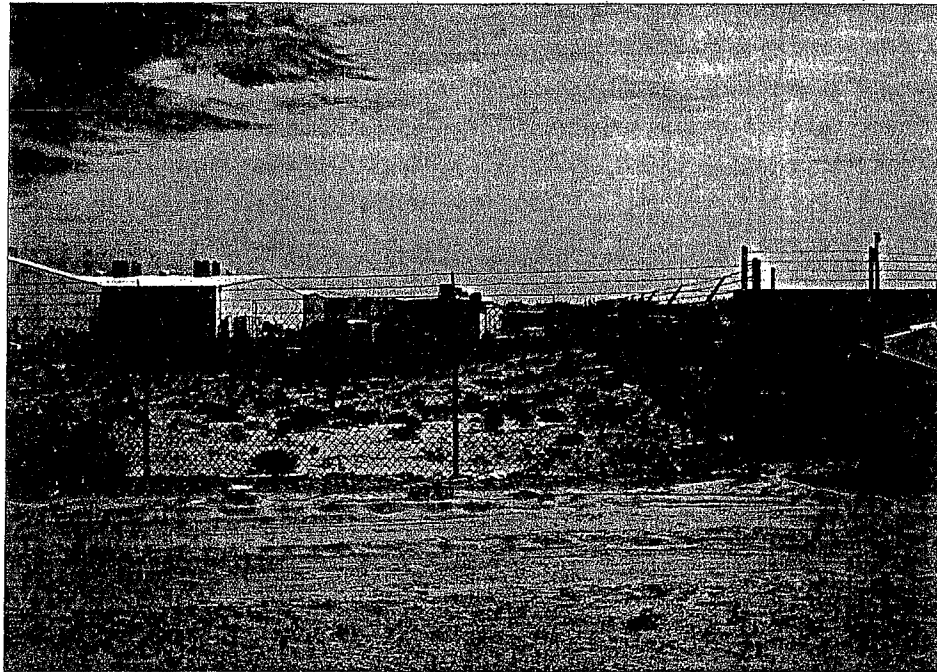
Photograph No. 3
Southeast Corner of Subject Property Viewing West.



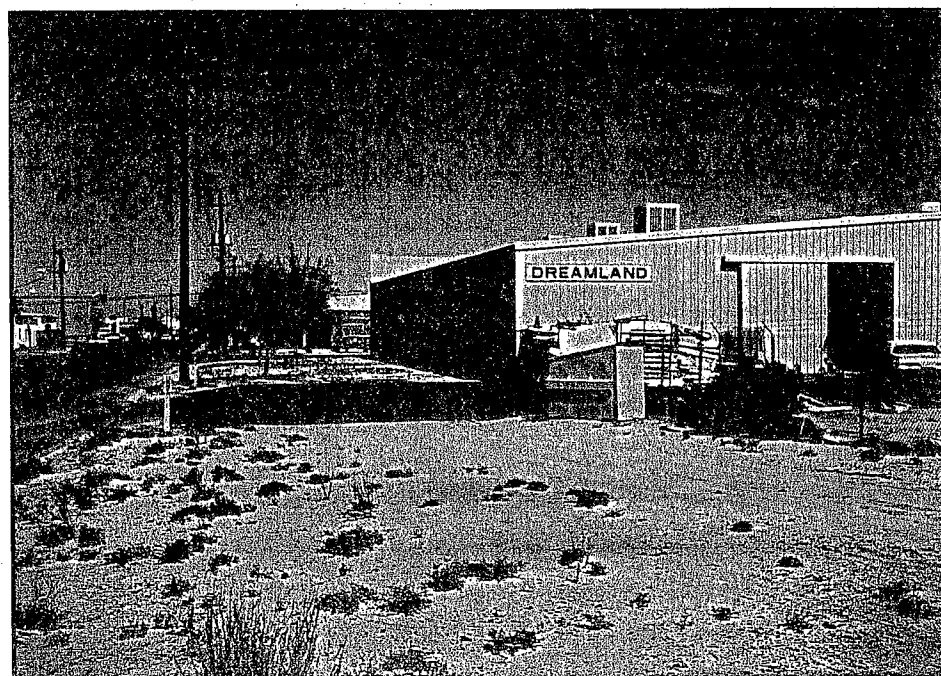
Photograph No. 4
Southeast Corner of Subject Property Viewing North.



Houston International Ltd.
Job No. 7110K083



Photograph No. 5
Southwest Corner of Subject Property Viewing East.



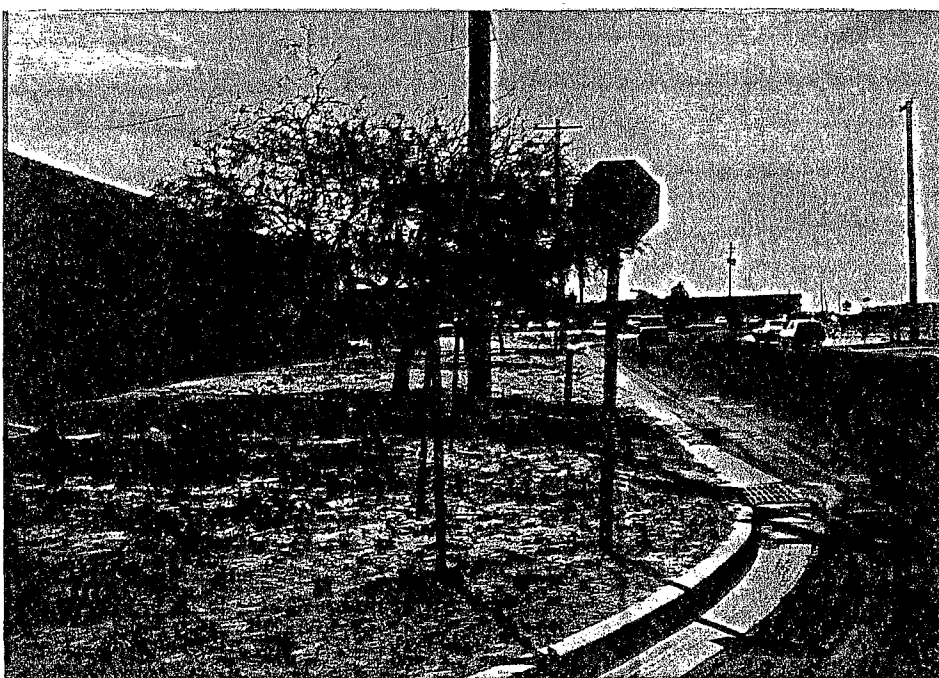
Photograph No. 6
Southwest Corner of Subject Property Viewing North.



Houston International Ltd.
Job No. 7110K083



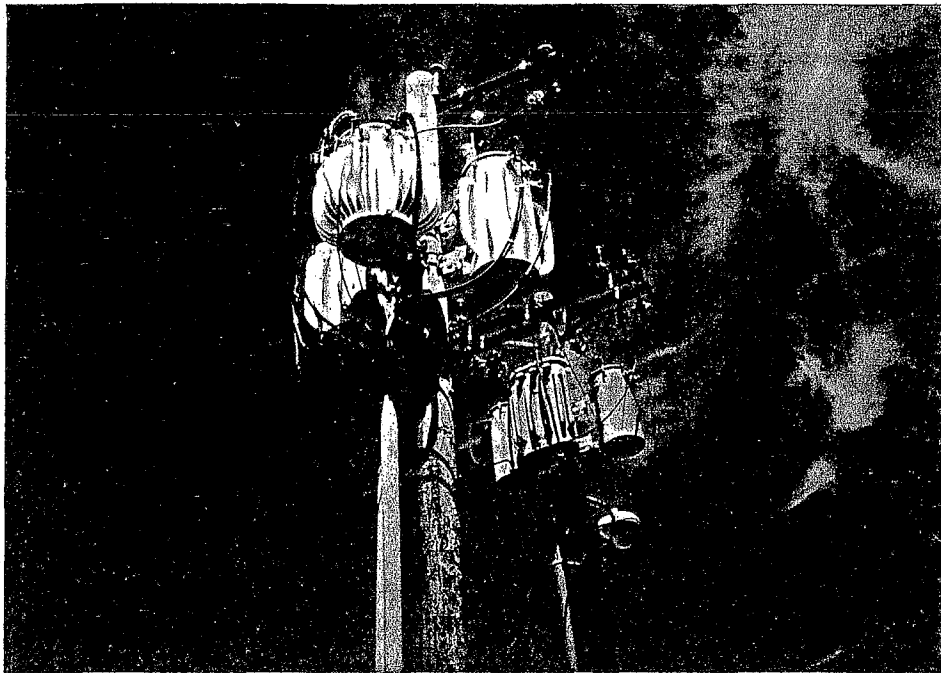
Photograph No. 7
Northwest Corner of Subject Property Viewing East.



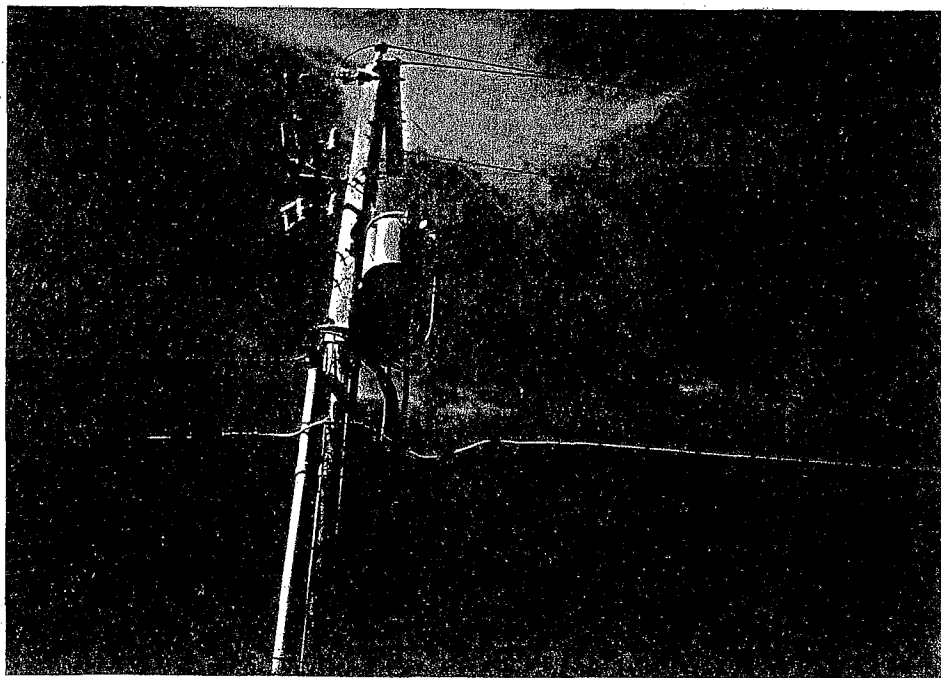
Photograph No. 8
Northwest Corner of Subject Property Viewing South.



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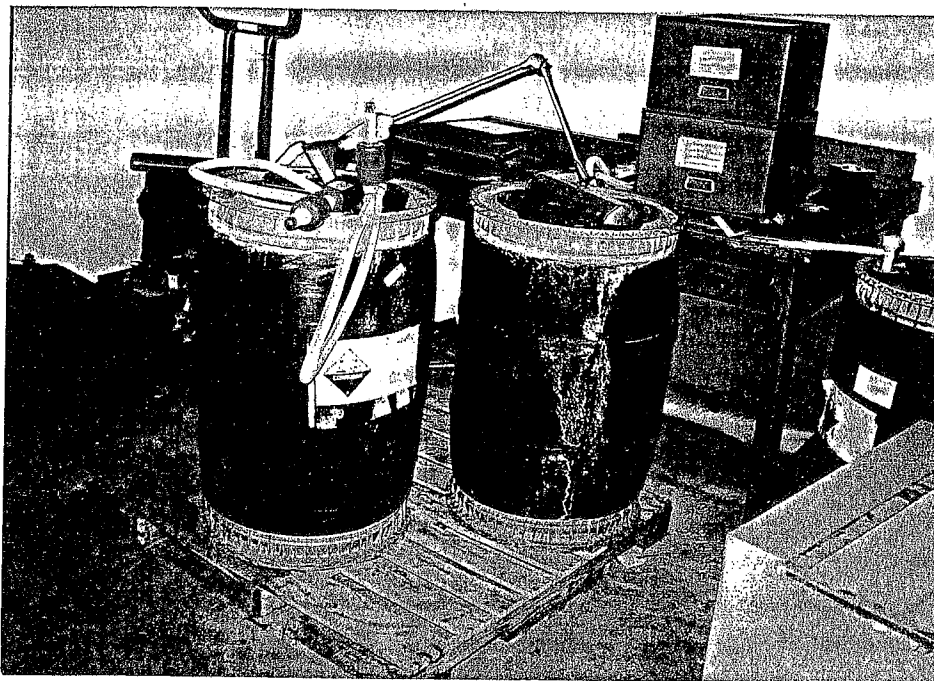
Photograph No. 9
Pole-mounted APS Transformers Between Warehouse Buildings.



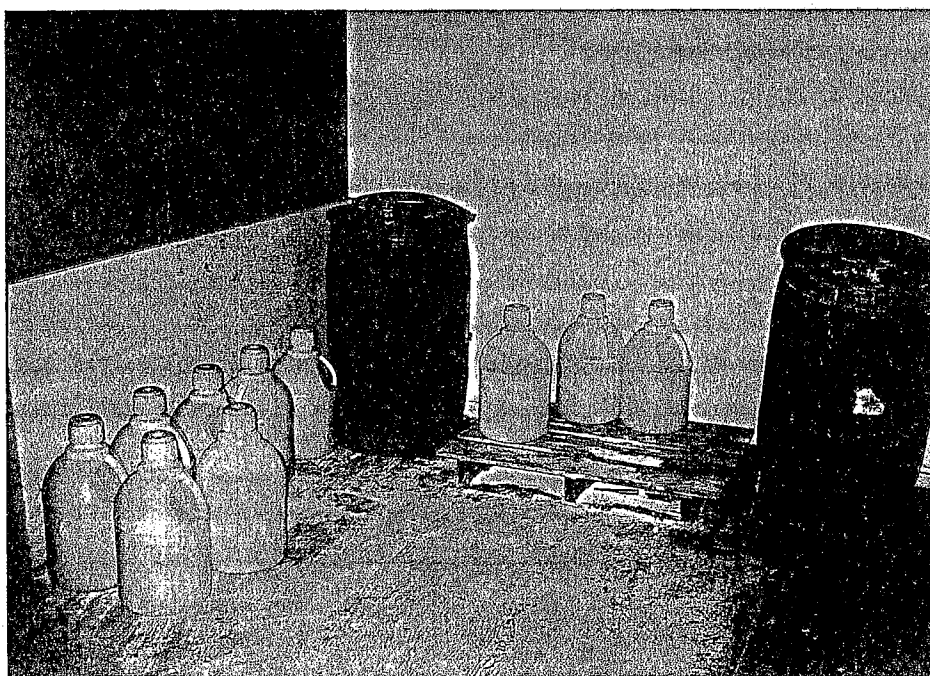
Photograph No. 10
Pole-mounted APS Transformers on Northwest Corner of Property.



Houston International Ltd.
Job No. 7110K083



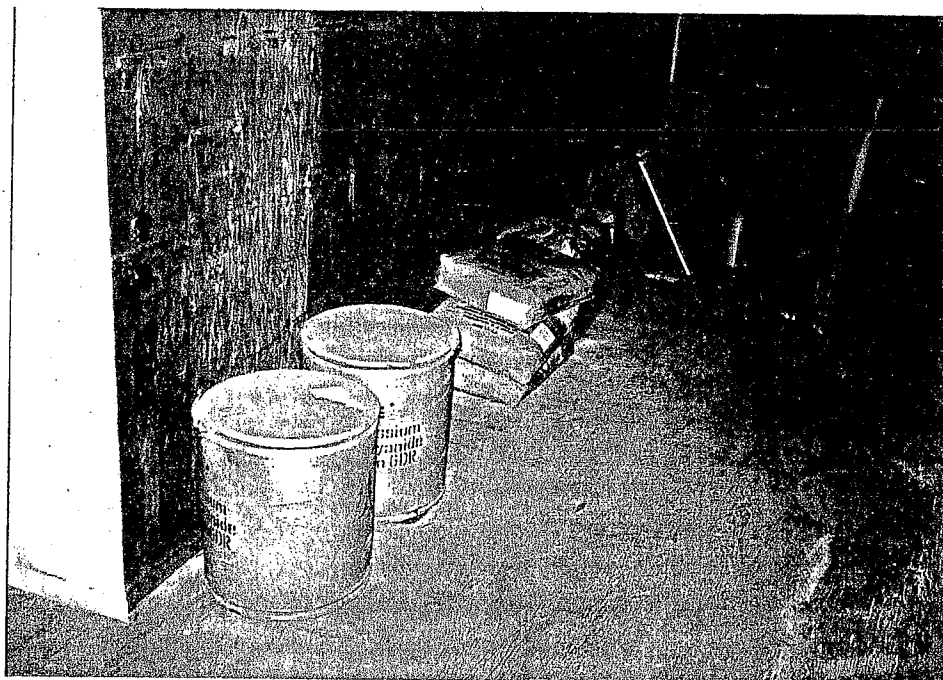
Photograph No. 11
Drums of Acid in First Floor Storage Room of Main Warehouse.



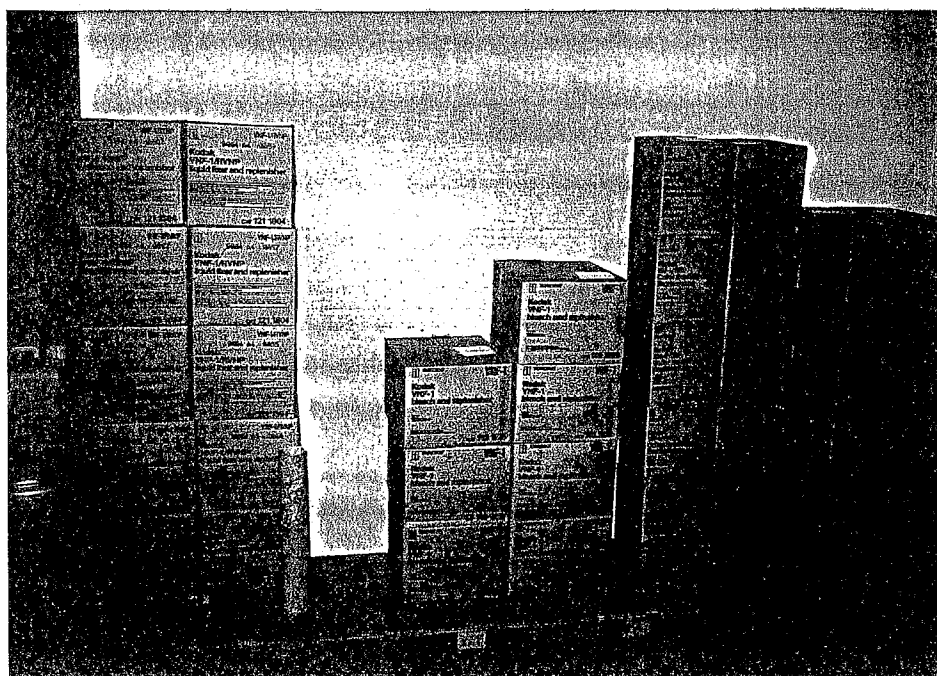
Photograph No. 12
Drums and Containers of Acid in Second Floor Storage Room of Main Warehouse.



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Job No. 7110K083



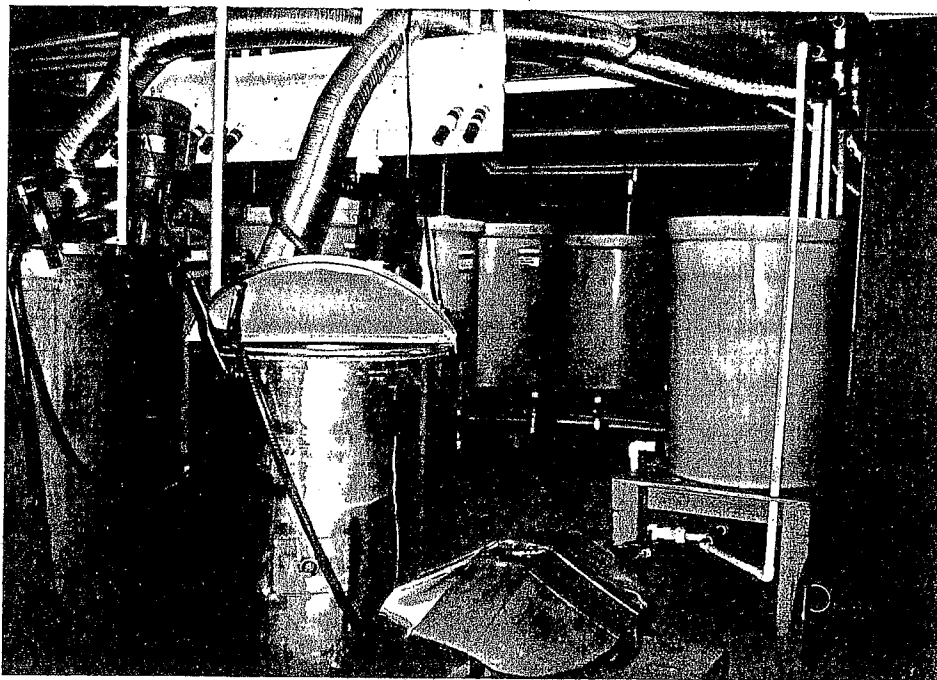
Photograph No. 13
Dry Photodeveloping Chemicals in Second Floor Storage Room of Main Warehouse.



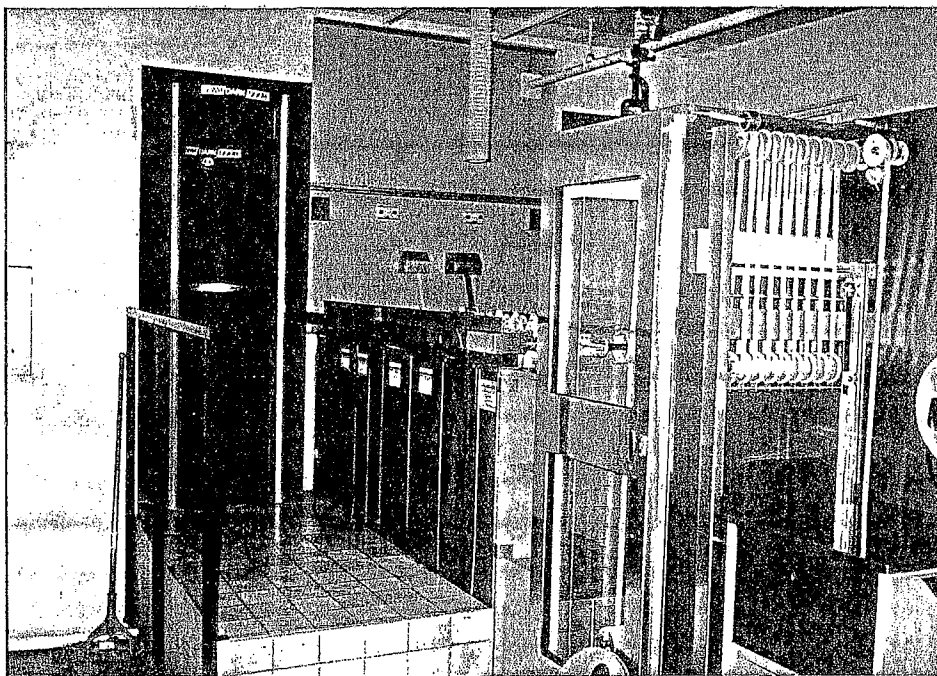
Photograph No. 14
Boxes of Liquid Developing Chemicals in Second Floor Storage Room of Main Warehouse.



Houston International Ltd.
Job No. 7110K083



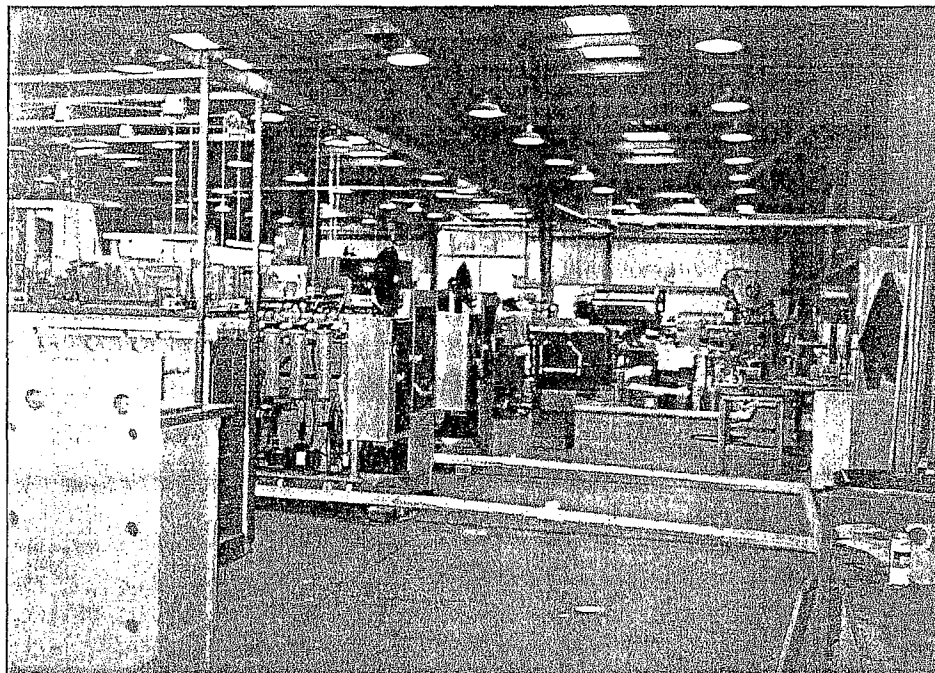
Photograph No. 15
Second Floor Photographic Chemical Mixing Area.



Photograph No. 16
First Floor Photographic Developing Machine.



Houston International Ltd.
Job No. 7110K083

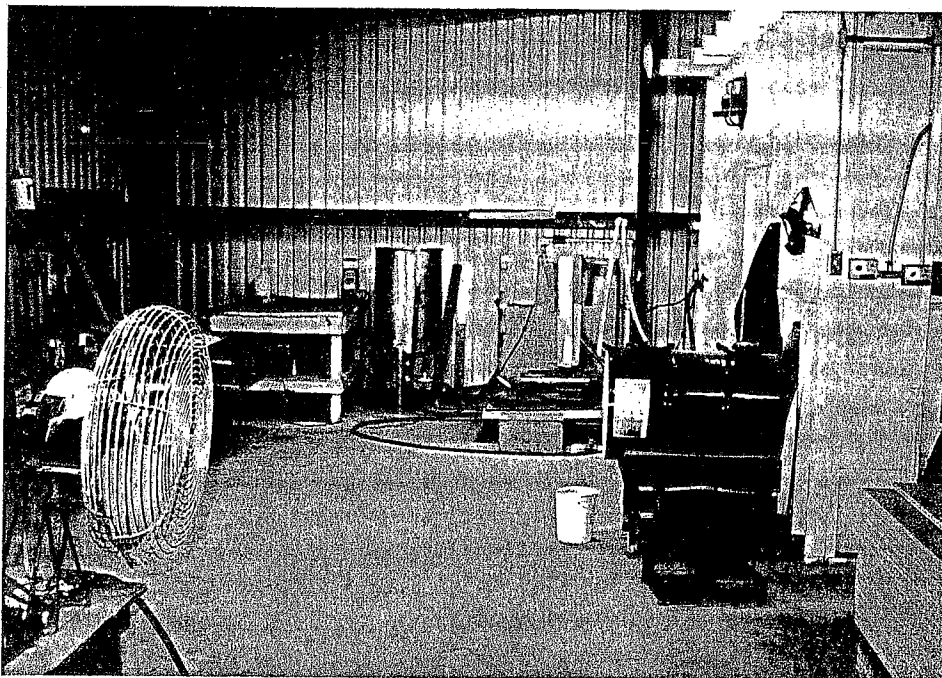


Photograph No. 17
Developing Machine Manufacturing Area - Main Warehouse.

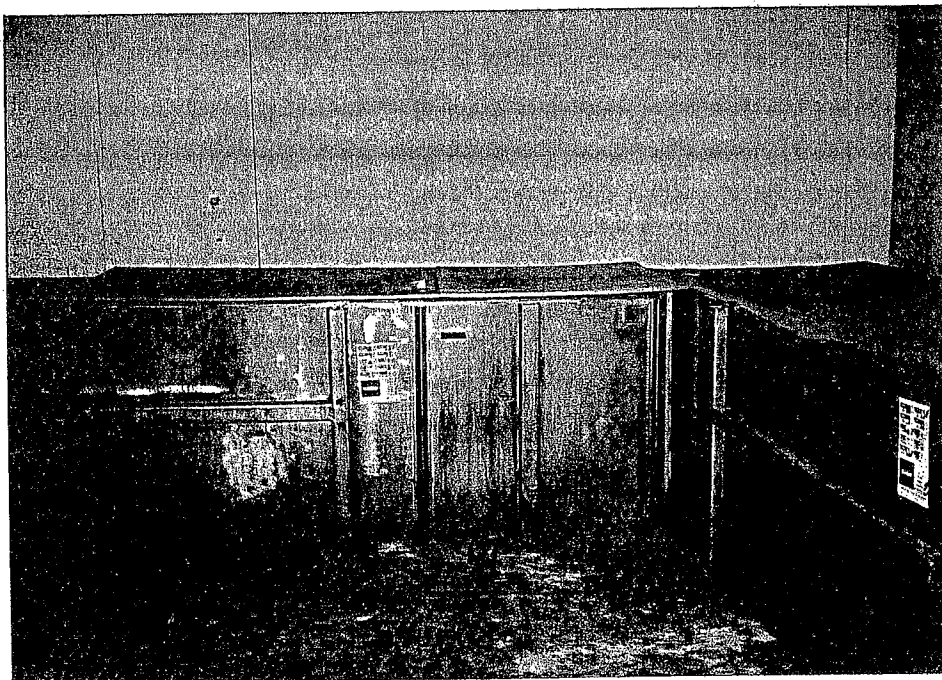


Photograph No. 18
Drums of Solvent and Acid Adjacent to Carpenters Shop.

Houston International Ltd.
Job No. 7110K083



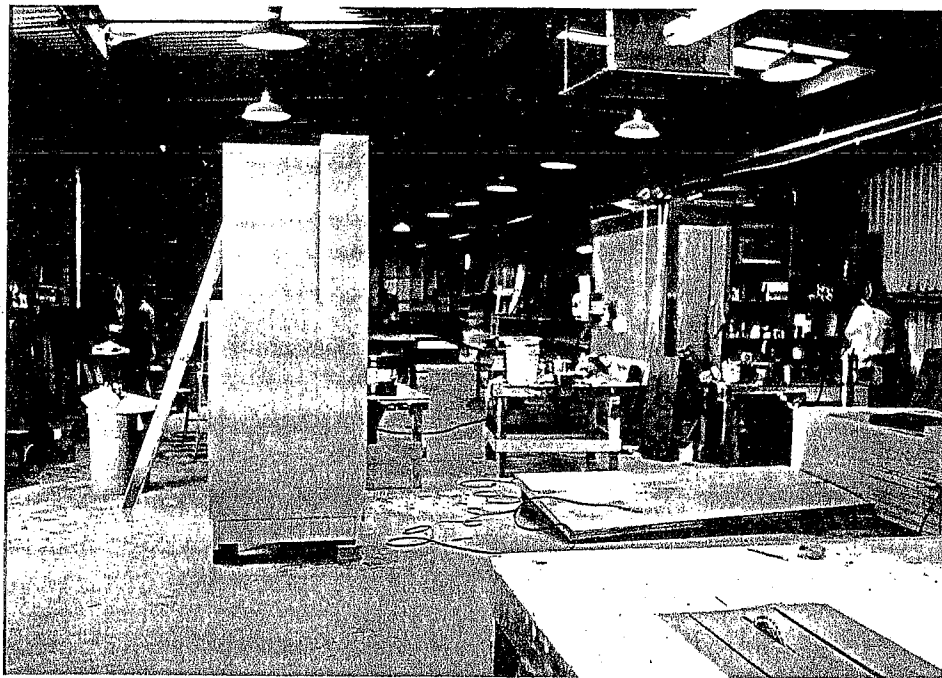
Photograph No. 19
Ethylene Glycol Drum and Tank in Carpenters Shop.



Photograph No. 20
Cleaning Tanks Inside Carpenter Shop.



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Job No. 7110K083



Photograph No. 21
Carpenter Shop.



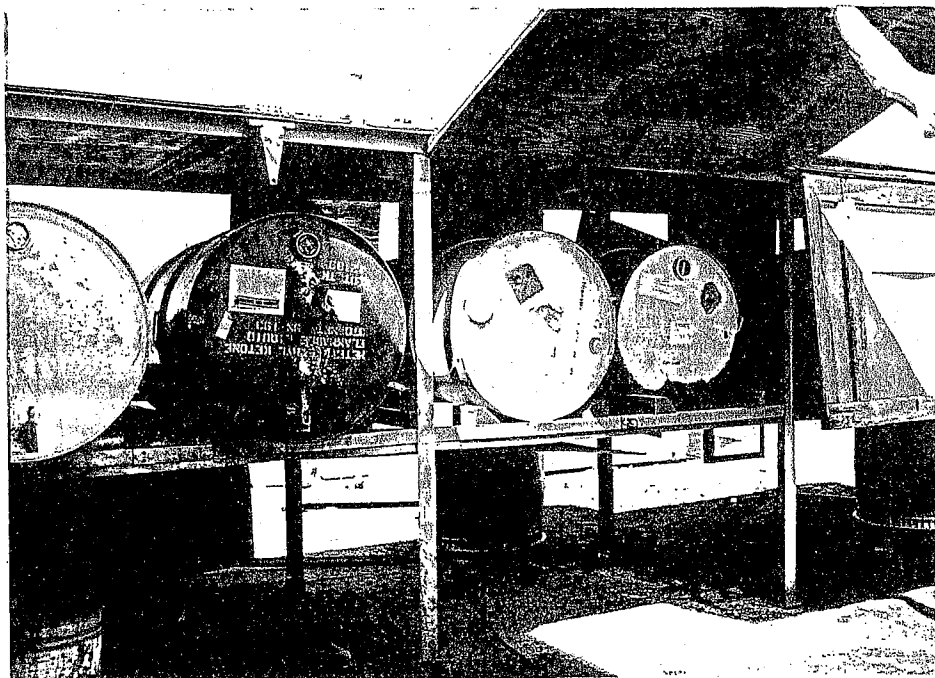
Photograph No. 22
Paints and Thinners Inside East Side of Paint Room.



Houston International Ltd.
Job No. 7110K083

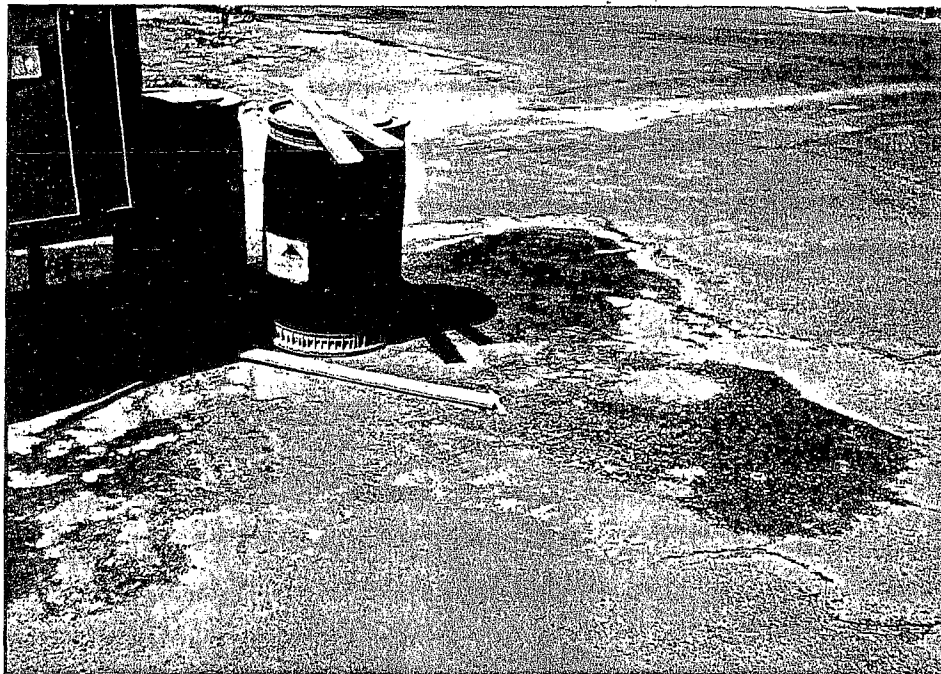


Photograph No. 23
Paints and Thinners inside West Side of Paint Room.



Photograph No. 24
Solvent Drums Adjacent to Paint Room.

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Job No. 7110K083

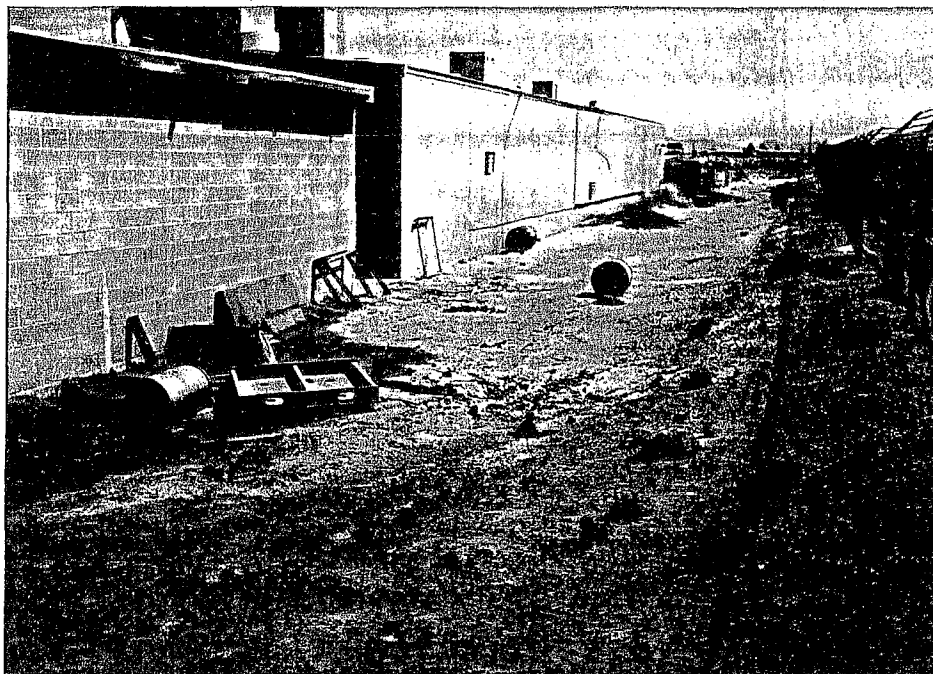


Photograph No. 25
Surface Stain on Asphalt Around Drums.

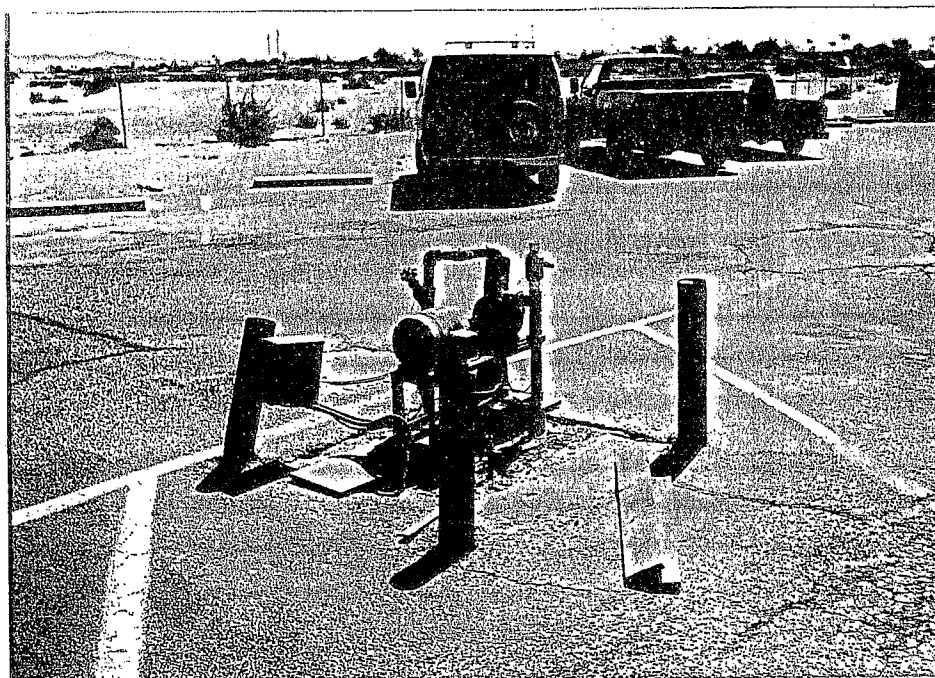


Photograph No. 26
Surface Staining on West Side of Paint Shop.

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Job No. 7110K083



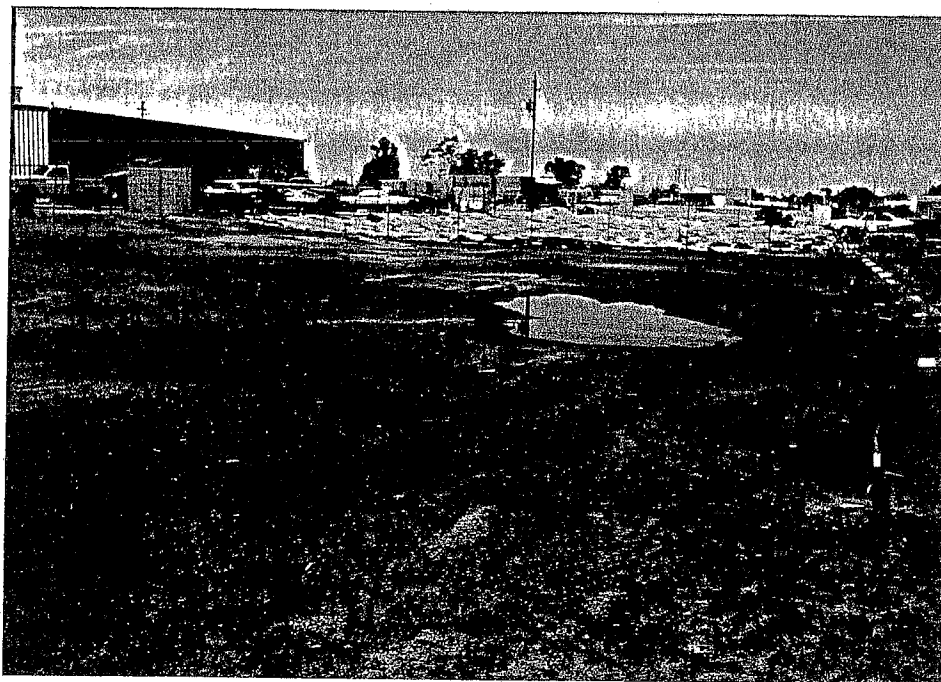
Photograph No. 27
Further Surface Staining on South Side of Paint Shop.



Photograph No. 28
Pump Above Concrete UST In East Parking Area.



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Photograph No. 29
Soil Stained Area Where Contents of UST are Sprayed. Viewing West.



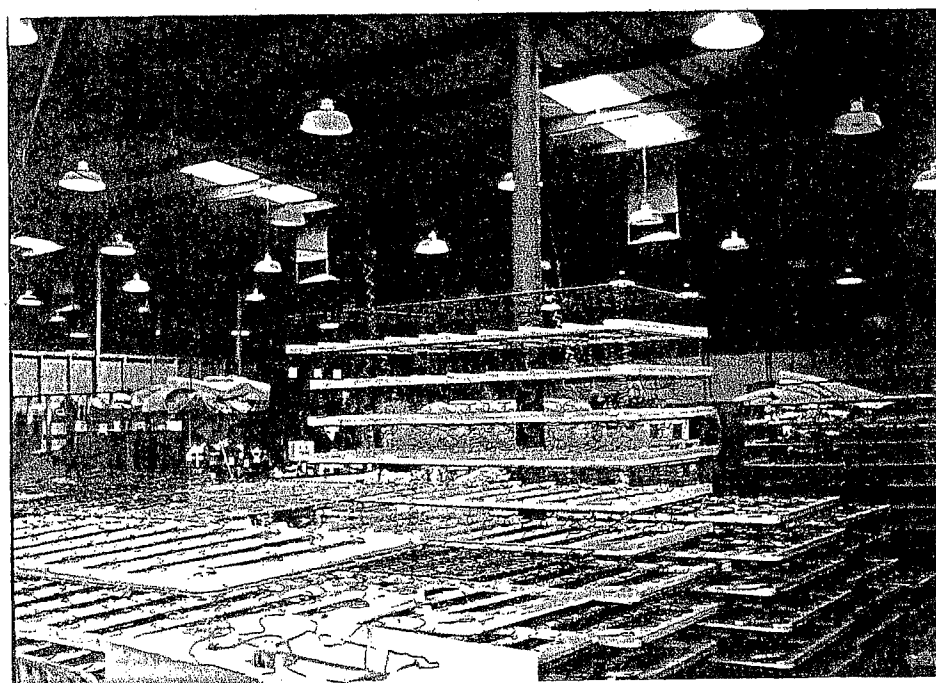
Photograph No. 30
Soil Stained Area Where Contents of UST are Sprayed. Viewed East.



Houston International Ltd.
Job No. 7110K083

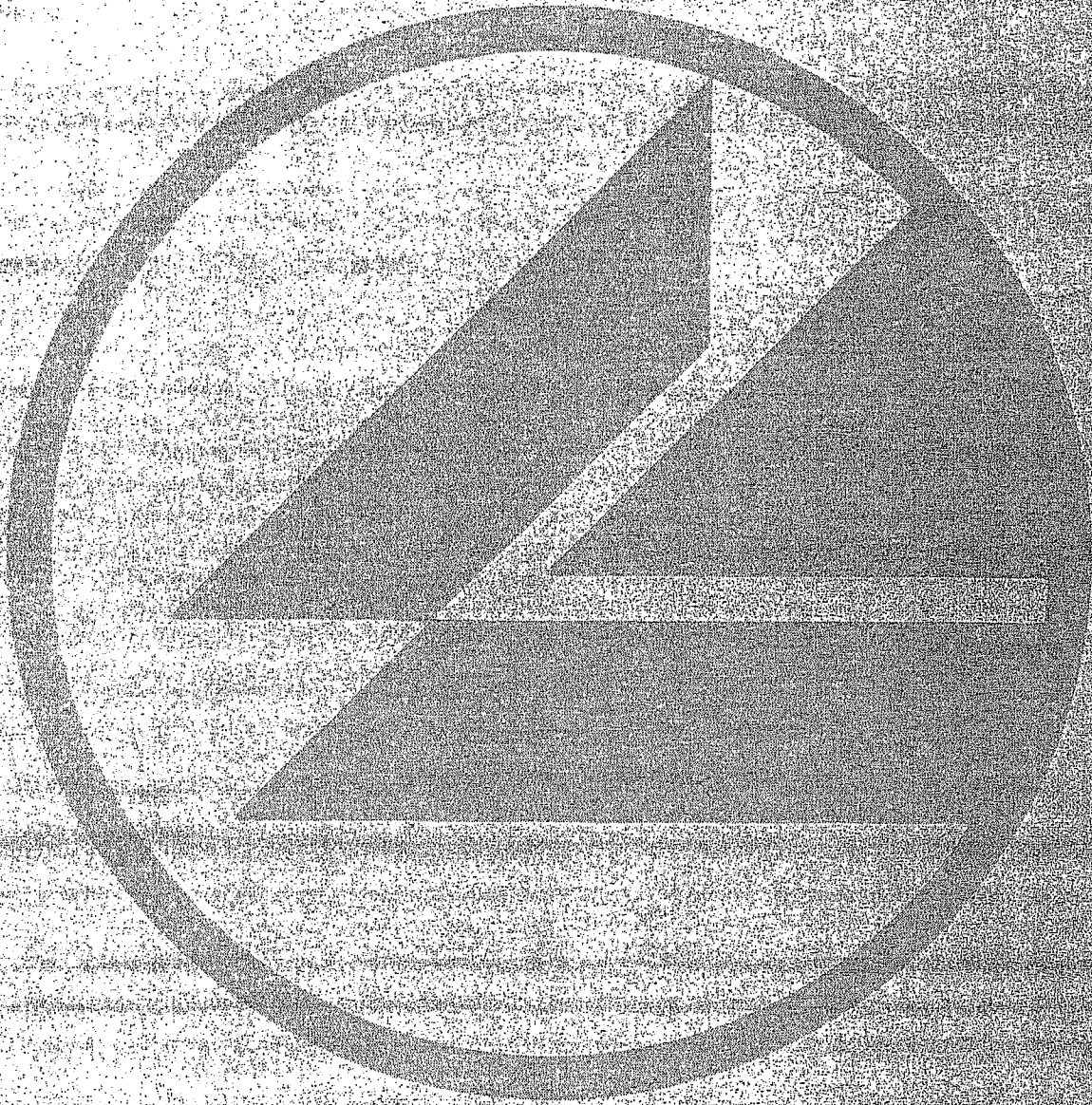


Photograph No. 31
Electronics Repair Area in West Warehouse.



Photograph No. 32
Mattress Manufacturer in West Warehouse.







**WESTEL
TECHNOLOGIES
INC.**

3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

CLIENT: Houston International LTD.
644 E. 20th Street
P. O. Box 5269
Yuma, AZ 85364

SAMPLE NO. : 2900633
INVOICE NO.: 7110W083
DATE : 3-27-90
REVIEWED BY: A. Assaf
PAGE : 1 of 6

CLIENT SAMPLE ID: HH-1
SAMPLE TYPE : Ceiling texture material
SAMPLE SOURCE : Main office building
SUBMITTED BY : B. Campbell
SAMPLED BY : B. Campbell

AUTHORIZED BY: B. Campbell
CLIENT P.O. : None
ANALYSIS DATE: 3-27-90
SAMPLE DATE : 3-21-90
SUBMITTED ON : 3-22-90

BULK ASBESTOS REPORT

Sample Description: White, friable spray-on surfacing material.

Fiber Identification

Optical Properties	Fiber 1	Fiber 2	Fiber 3
Color	White		
Morphology	Wavey		
Birefringence	Low		
Sign of elongation	+		
Extinction	Parallel		
D.S. test, RI of matching liquid	1.55		
Approx. quantity	2-5%		
Identification	Chrysotile		

Total Composition: 2-5% Chrysotile, 60% vermiculite, 35-37% calcite.

Notes:

Percent Asbestos Overall - 2-5% Chrysotile.

Analyst: Anna Logvinenko

Anna Logvinenko

Analysis Method: Polarized Light Microscopy - EPA-600/M4-82-020

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TECHNICS
INC.

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Phoenix, Arizona 85036
(602) 437-3737

CLIENT: Houston International LTD.
644 E. 20th Street
P. O. Box 5269
Yuma, AZ 85364

SAMPLE NO. : 2900634
INVOICE NO.: 7110W083
DATE : 3-27-90
REVIEWED BY: A. Assaf
PAGE : 2 of 6

CLIENT SAMPLE ID: HH-2
SAMPLE TYPE : Floor tile and mastic
SAMPLE SOURCE : Main office building
SUBMITTED BY : B. Campbell
SAMPLED BY : B. Campbell

AUTHORIZED BY: B. Campbell
CLIENT P.O. : None
ANALYSIS DATE: 3-27-90
SAMPLE DATE : 3-21-90
SUBMITTED ON : 3-22-90

BULK ASBESTOS REPORT

Sample Description: Dark red floor tile and black mastic, both materials are non-friable.

Fiber Identification

Optical Properties	Fiber 1	Fiber 2
Color	White	
Morphology	Wavy	
Birefringence	Low	
Sign of elongation	+	
Extinction	Parallel	
D.S. test, RI of matching liquid	1.55	
Approx. quantity	30% (tile), 15% (mastic)	
Identification	Chrysotile	

Total Composition: Tile= 30% Chrysotile, 5% filler (quartz sand),
65% matrix (vinyl):
Mastic= 15% Chrysotile, 85% tar.

Notes:

Percent Asbestos Overall - Tile= 30% Chrysotile: Mastic= 15% Chrysotile.

Analyst: Anna Logvinenko

Anna Logvinenko

Analysis Method: Polarized Light Microscopy - EPA-600/M4-82-020
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INC.**

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P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

CLIENT: Houston International LTD.
644 E. 20th Street
P. O. Box 5269
Yuma, AZ 85364

SAMPLE NO. : 2900635
INVOICE NO.: 7110W083
DATE : 3-27-90
REVIEWED BY: A. Assaf
PAGE : 3 of 6 *AA*

CLIENT SAMPLE ID: HH-3
SAMPLE TYPE : Ceiling texture material
SAMPLE SOURCE : West office building
SUBMITTED BY : B. Campbell
SAMPLED BY : B. Campbell

AUTHORIZED BY: B. Campbell
CLIENT P.O. : None
ANALYSIS DATE: 3-27-90
SAMPLE DATE : 3-21-90
SUBMITTED ON : 3-22-90

BULK ASBESTOS REPORT

Sample Description: White, friable spray-on surfacing material.

Fiber Identification

Optical Properties	Fiber 1	Fiber 2	Fiber 3
Color	White		
Morphology	Wavy		
Birefringence	Low		
Sign of elongation	+		
Extinction	Parallel		
D.S. test, RI of matching liquid	1.55		
Approx. quantity	10%		
Identification	Chrysotile		

Total Composition: 10% Chrysotile, 45% styrofoam, 45% calcite.

Notes:

Percent Asbestos Overall - 10% Chrysotile.

Analyst: Anna Logvinenko

Anna Logvinenko

Analysis Method: Polarized Light Microscopy - EPA-600/M4-82-020
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TECHNOLOGIES
INC.**

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P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

CLIENT: Houston International LTD.
644 E. 20th Street
P. O. Box 5269
Yuma, AZ 85364

SAMPLE NO. : 2900636
INVOICE NO.: 7110W083
DATE : 3-27-90
REVIEWED BY: A. Assaf
PAGE : 4 of 6

CLIENT SAMPLE ID: HH-4
SAMPLE TYPE : Floor tile
SAMPLE SOURCE : West office building
SUBMITTED BY : B. Campbell
SAMPLED BY : B. Campbell

AUTHORIZED BY: B. Campbell
CLIENT P.O. : None
ANALYSIS DATE: 3-27-90
SAMPLE DATE : 3-21-90
SUBMITTED ON : 3-22-90

BULK ASBESTOS REPORT

Sample Description: Grey, non-friable floor tile.

Fiber Identification

Optical Properties	Fiber 1	Fiber 2	Fiber 3
Color	White		
Morphology	Wavy		
Birefringence	Low		
Sign of elongation	+		
Extinction	Parallel		
D.S. test, RI of matching liquid	1.55		
Approx. quantity	15%		
Identification	Chrysotile		

Total Composition: 15% Chrysotile, 5% filler (quartz sand), 80% vinyl.

Notes: Asbestos was localized in the bottom part of the tile.

Percent Asbestos Overall - 15% Chrysotile.

Analyst: Anna Logvinenko

Anna Logvinenko

Analysis Method: Polarized Light Microscopy - EPA-600/M4-82-020
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P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

CLIENT: Houston International LTD.
644 E. 20th Street
P. O. Box 5269
Yuma, AZ 85364

SAMPLE NO. : 2900637
INVOICE NO.: 7110W083
DATE : 3-27-90
REVIEWED BY: A. Assaf
PAGE : 5 of 6

CLIENT SAMPLE ID: HH-5
SAMPLE TYPE : Wall acoustical tile
SAMPLE SOURCE : Main office building
SUBMITTED BY : B. Campbell
SAMPLED BY : B. Campbell

AUTHORIZED BY: B. Campbell
CLIENT P.O. : None
ANALYSIS DATE: 3-27-90
SAMPLE DATE : 3-21-90
SUBMITTED ON : 3-22-90

BULK ASBESTOS REPORT

Sample Description: Yellow, fibrous acoustical tile painted white.

Fiber Identification

Optical Properties	Fiber 1	Fiber 2	Fiber 3
Color	White & yellow		
Morphology	Thick		
Birefringence	Low		
Sign of elongation	+		
Extinction	Undulose		
D.S. test, RI of matching liquid	1.55		
Approx. quantity	100%		
Identification	Cellulose		

Total Composition: 100% cellulose.

Notes:

Percent Asbestos Overall - None detected.

Analyst: Anna Logvinenko

Anna Logvinenko

Analysis Method: Polarized Light Microscopy - EPA-600/M4-82-020

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CLIENT: Houston International LTD.
644 E. 20th Street
P. O. Box 5269
Yuma, AZ 85364

SAMPLE NO. : 2900638
INVOICE NO.: 7110W083
DATE : 3-27-90
REVIEWED BY: A. Assaf
PAGE : 6 of 6

CLIENT SAMPLE ID: HH-6
SAMPLE TYPE : 2nd floor tile
SAMPLE SOURCE : Main office building
SUBMITTED BY : B. Campbell
SAMPLED BY : B. Campbell

AUTHORIZED BY: B. Campbell
CLIENT P.O. : None
ANALYSIS DATE: 3-27-90
SAMPLE DATE : 3-21-90
SUBMITTED ON : 3-22-90

BULK ASBESTOS REPORT

Sample Description: Brown, non-friable floor tile.

Fiber Identification

Optical Properties	Fiber 1	Fiber 2	Fiber 3
Color			
Morphology			
Birefringence			
Sign of elongation			
Extinction			
D.S. test, RI of matching liquid			
Approx. quantity			
Identification			

Total Composition: 100% mixture of vinyl and calcite.

Notes:

Percent Asbestos Overall - None detected.

Analyst: Anna Logvinenko

Analysis Method: Polarized Light Microscopy - EPA-600/M4-82-020
1180L

No 3454

CHAIN OF CUSTODY RECORD

[illegible]

**DRAFT INDUSTRIAL SURVEY
20th STREET AND FACTOR AVENUE
WQARF REGISTRY SITE
YUMA, ARIZONA**

Prepared for

**Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, AZ 85007**

Prepared by

**HydroGeoLogic, Inc.
340 East Palm Lane
Suite 240
Phoenix, Arizona 85004**

**ADEQ Contract No. 07-0046
ADEQ Task Assignment No. 07-0146**

June 29, 2007

The findings, opinions, and conclusions contained in this report are solely those of HydroGeoLogic, Inc. These findings, opinions, and conclusions do not necessarily reflect the position of the state of Arizona, or any of its departments or agencies.

**DRAFT INDUSTRIAL SURVEY
20th STREET AND FACTOR AVENUE
WQARF REGISTRY SITE
YUMA, ARIZONA**

Prepared for

**Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, AZ 85007**

Prepared by

**HydroGeoLogic, Inc.
340 East Palm Lane
Suite 240
Phoenix, Arizona 85004**

**ADEQ Contract No. 07-0046
ADEQ Task Assignment No. 07-0146**

June 29, 2007

The findings, opinions, and conclusions contained in this report are solely those of HydroGeoLogic, Inc. These findings, opinions, and conclusions do not necessarily reflect the position of the state of Arizona, or any of its departments or agencies.

TFHGLC000002

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LIST OF ACRONYMS/ABBREVIATIONS

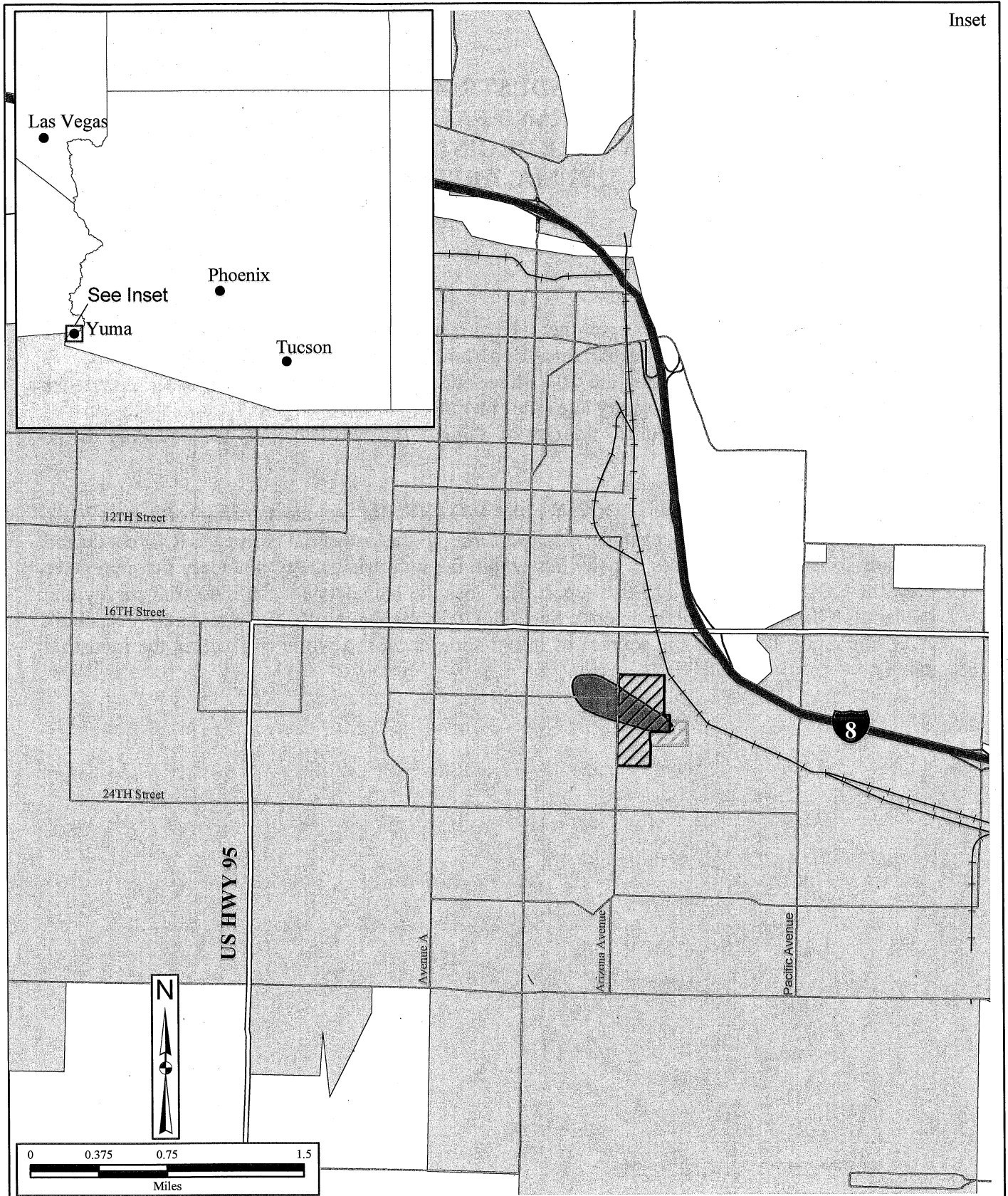
ADEQ	Arizona Department of Environmental Quality
ASU	Arizona State University
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESQG	Conditionally Exempt Small Quantity Generator
COCs	contaminants of concern
HGL	HydroGeoLogic, Inc.
Houston	Houston International
HRS	hazardous ranking system
ID	identification
lbs	pounds
LUST	leaking underground storage tank
PA/SI	preliminary assessment/site investigation
PCE	tetrachloroethene
RCRA	Resource Conservation and Recovery Act
site	20 th Street and Factor Avenue WQARF Registry Site
TCE	trichloroethene
U.S. EPA	United States Environmental Protection Agency
UST	underground storage tank
WQARF	Water Quality Assurance Revolving Fund

**DRAFT INDUSTRIAL SURVEY
20th STREET AND FACTOR AVENUE
WQARF REGISTRY SITE
YUMA, ARIZONA**

1.0 INTRODUCTION

On March 22, 2007, HydroGeoLogic, Inc. (HGL) received Task Assignment No. 07-0146 under Contract No. 07-0046 from the Arizona Department of Environmental Quality (ADEQ) to conduct an industrial survey for the 20th Street and Factor Avenue Water Quality Assurance Revolving Fund (WQARF) Registry site (site) in Yuma, Arizona. Figure 1.1 depicts the area of the industrial survey in relation to the city of Yuma. Figure 1.2 depicts the boundary of the industrial survey.

The contaminants of concern (COCs) for the WQARF site include tetrachloroethene (PCE), trichloroethene (TCE), and cyanide. In performing the industrial survey, HGL conducted research to identify businesses or activities within the industrial survey boundary that may have used the COCs. Section 2.0 of this report describes the boundary for the industrial survey and explains HGL's research methodology. Section 3.0 details the results of the research. Appendix A of this report describes the sources of information consulted while conducting the industrial survey.



Inset

Filename: X:/Phoenix/Graphics/ARI005/TA3/
Fig-1-1a_20_Factor_IS.mxd
Project: ARI005-003
Created: BWoltz 06/13/2007
Revised: BWoltz 06/28/2007
Map Source: ADOT; ADEQ, 2006;
www.azdeq.gov



Legend





-  Industrial Survey Boundary
-  Additional Area Researched
-  Estimated Plume Boundary
-  Yuma City Boundary

Figure 1.1
Industrial Survey Location Map
20th Street and Factor Avenue
WQARF Registry Site



Filename: X:/Phoenix/Graphics/ARI005/TA3/
Fig-1-1_20_Factor_IS.mxd
Project: ARI005-003
Created: BWoltz 06/28/2007
Revised: BWoltz 06/29/2007
Map Source: ADOT; ADEQ, 2006;
www.azdeg.gov



Legend





-  Industrial Survey Boundary
-  Additional Area Researched
-  Houston International
-  Freedom Newspapers of Southwestern Arizona, Inc.

Figure 1.2
Facilities Location Map
20th Street and Factor Avenue
WQARF Registry Site
TFHGLC000008

2.0 INDUSTRIAL SURVEY

2.1 IDENTIFICATION OF SITE BOUNDARY

HGL conducted an industrial survey to assist the ADEQ in its investigation of the 20th Street and Factor Avenue WQARF Registry site in Yuma, Arizona. The ADEQ identified the boundary of the industrial survey as 18th Street to the north, the railroad parcels to the east, 22nd Street to the south, and Arizona Avenue to the west. HGL used the Yuma County online geographic information systems mapping program to determine the street ranges within the industrial survey boundary.

In addition to the boundary established by the ADEQ, HGL conducted research on an additional area because of its proximity to the WQARF site and the nature of the businesses in the area. Figure 1.2 above depicts the boundary of the industrial survey, including the additional research area. The street addresses within the industrial survey boundary are identified in Table 2.1 below.

Table 2.1
Industrial Survey Street Ranges

From	To	Street Name
501	798	East 18 th Place
501	698	East 18 th Street
751	898	East 19 th Street
501	1098	East 20 th Street
701	1098	East 21 st Street
501	809	East 22 nd Street
1800	2199	South Arizona Avenue
1800	2199	South Factor Avenue
2000	2100	South Kennedy Lane
1800	1999	South Rail Avenue

2.2 METHODOLOGY

HGL reviewed a variety of resources to identify businesses that operated within the industrial survey boundary. When possible, HGL attempted to ascertain the nature of these businesses. In addition, HGL conducted an extensive search of ADEQ finding aids to locate any files pertaining to businesses within the industrial survey boundary. To locate relevant regulatory files, HGL used the zip codes 85365 and 85364 and the street names identified in Table 2.1. The subsections below describe HGL's research methodology.

2.2.1 City of Yuma Directory Research

HGL reviewed Yuma city directories published by Arizona Directory Company, Yuma Directory Company, Mountain Bell, Johnson Publishing Company, Capitalist Company, Hill-Donnelly, and R.L. Polk Directory. HGL began its review with the 1947 directory and continued searching until identifying the first commercial entity within the industrial survey boundary in 1953. All

available directories from 1953 to 2006 were then similarly reviewed. The city directories are divided into two parts, a street directory guide and a business directory guide, both of which were used to conduct the industrial survey.

The city directory research was conducted at the City of Phoenix Burton Barr Library, Arizona State Capitol Archives, Arizona State University Hayden Library (ASU), and the Yuma Main Library. If there were minor variations in a party's name over time (e.g., Yuma Winelectric Co. in 1998 and Winelectric Supply Co., Inc. in 1999), HGL assumed that the same business was operating at the address and used the more descriptive name for all the years the business operated.

In order to identify the business types of the parties located within the industrial survey boundary, HGL reviewed business directory guides for the city of Yuma. By reviewing the business directory guides, HGL captured companies that fell within both the address range for the site and a business category that is likely to have used the COCs.

HGL conducted a final search utilizing the Google search engine on the Internet as a final resource to identify unknown business activities.

HGL was unable to locate city, business, or manufacturing directories for 1981 and 1992.

2.2.2 Resource Conservation and Recovery Act Notification Files and Manifests

HGL reviewed the ADEQ Resource Conservation and Recovery Act (RCRA) notification file finding aid to identify permitted facilities within the industrial survey boundary. HGL searched the finding aid by city and street address. HGL identified eight facilities within the industrial survey boundary with RCRA notification files. HGL reviewed the notification files and manifests for these facilities. HGL also searched the United States Environmental Protection Agency's (U.S. EPA) Envirofacts Multi-System Queries database via the Internet to identify RCRA facilities. The database listed four facilities with RCRA identification (ID) numbers within the industrial survey boundary.

2.2.3 RCRA Case Files, Compliance Log, and Archived Files

HGL reviewed the ADEQ RCRA open and closed case files, RCRA compliance log, and RCRA archived file finding aids to locate files on facilities within the industrial survey boundary. The finding aids were searched by street name and zip code and listed one facility within the industrial survey boundary.

2.2.4 Comprehensive Environmental Response, Compensation, and Liability Act

HGL searched the U.S. EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database via the Internet to locate Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites within the industrial survey boundary. HGL queried the database by zip code and did not find any sites within the industrial survey boundary.

2.2.5 Preliminary Assessment/Site Investigation

HGL reviewed the ADEQ preliminary assessment/site investigation (PA/SI) finding aid to locate files on facilities within the industrial survey boundary. The PA/SI finding aid was searched by street name and zip code. HGL identified two facilities within the industrial survey boundary with PA/SI files and reviewed the records at the ADEQ.

2.2.6 Underground Storage Tank and Leaking Underground Storage Tank Research

HGL searched the ADEQ underground storage tank (UST) and leaking underground storage tank (LUST) online databases by zip code to identify facilities within the industrial survey boundary where the COCs may have been stored and/or released into the environment. HGL reviewed the databases to determine if any facilities maintained tanks containing waste oil, used oil, solvents, or an unknown product. HGL identified seven facilities with USTs within the industrial survey boundary, one of which also had a LUST. HGL reviewed the UST and LUST files at the ADEQ.

2.2.7 ADEQ Water Quality Database

HGL searched the ADEQ water quality database for information on applications and permits for facilities within the industrial survey boundary. The database was queried with all of the business names that were identified during the city directory review. HGL identified seven facilities with wastewater files and reviewed the records at the ADEQ.

2.2.8 Registered Drywells

HGL searched the ADEQ drywell database to identify any registered drywells within the industrial survey boundary. HGL queried the database on the zip codes of the industrial survey boundary and found no registered drywells.

2.2.9 WQARF Files

HGL searched the ADEQ Hummingbird database by street name and zip code to identify any WQARF files for facilities within the industrial survey boundary. HGL identified one facility with two WQARF files and reviewed the records at the ADEQ.

2.2.10 Hazardous Waste Box Storage, Hazardous Materials Incident Logbook, and Hazardous Waste Inspections Databases

HGL searched the ADEQ Hazardous Waste Box Storage, Hazardous Materials Incident Logbook, and Hazardous Waste Inspections databases by street name and zip code to identify any files for facilities within the industrial survey boundary. HGL identified one facility with a Hazardous Waste Box Storage file and reviewed the records at the ADEQ.

3.0 INDUSTRIAL SURVEY RESULTS

3.1 CITY OF YUMA DIRECTORY RESULTS

In conducting the Yuma city directory research, HGL identified 368 businesses within the industrial survey boundary. In past research conducted for the ADEQ, HGL has identified general business categories that may be significant users or generators of the COCs at the WQARF site.¹ For the businesses identified in the city directories, HGL assigned them into general business categories, when applicable. In total, 145 businesses were able to be assigned into the following business categories:

- Chemical Dealers: 4 businesses
- Carpet Cleaners: 3 business
- Furniture & Store Fixture Builders/Finishers: 10 businesses
- Manufacturing Operations: 11 businesses
- Metal Fabrication/Welding Shops: 4 businesses
- Pest Control Services: 1 businesses
- Printers: 19 businesses
- Produce Growers/Shippers/Dealers: 32 businesses
- Vehicle Repair/Service: 56 businesses
- Photography Studio: 4
- Aircraft Repair: 1

Another 196 businesses were retailers, wholesalers, or service-oriented companies not known to typically use the COCs in their business activities. The business activities of the remaining 27 companies were not readily discernable.

Tables 3.1 through 3.9 present the results of the Yuma city directory research by street address. The tables list business name, years of operation, and business type, if known. The business names and years of operation are provided as listed in the Yuma street directories. If a business category was identified in the city directories, it was included in the business type field without an asterisk. If a business type was determined based on a business's name, then it was noted with an asterisk. If a business type could not be determined, the business type was left blank.

¹ This determination of significant users or generators is based on HGL's prior investigation of business types that commonly used the same COCs. This work was conducted on behalf of the ADEQ for other industrial surveys in Arizona under Contract No. 01-0069.

Table 3.1
City Directory Results – 501-798 18th Place East

Address	Business	Years	Business Type	Comments
501-798 18th Place East				
575				
	O'Mally Glass	1968-1985	Glass: Auto Plate & Window	
	Communications Management	1986	Communications	
	C Q Communications Inc.	1986-1987	Communications	
	A-1 Floor Coverings Co.	1994, 1997	Flooring Retailer	
	Chemical Dry of Yuma	1993-2005	Carpet Cleaners	
	Yuma Carpets	1990-2006	Flooring Retailer	
616				
	N O Nelson Co.	1979-1984		
	Yuma Winelectric	1985-1999	Electrical Equipment Retailer	
	Duct Works	2001-2006	Air Duct Installation*	
630				
	Wellard Construction Co.	1979	Construction	
	Hall Specialty Plaster & Drywall	1979-1982	Plaster & Drywall Supplies	
	Hall-Patterson International	1979-1984		
	Hall Specialty Building Supply	1979-1983	Building Supply Retailer	
	Southwest Gas Corporation	1992		There is no information on when Southwest Gas Corp. initially opened at this address. The only information available was that a LUST was removed in 1992.
	Allstar Installations	2006	Carpet Installation*	
631				
	Mesa Electronics	1978	Electronic Supply Retailer	

Table 3.1 (continued)
City Directory Results – 501-798 18th Place East

Address	Company	Years	Business Type	Comments
501-798 18th Place East				
631 (continued)				
	Marj's Ceramics	1980-1983	Ceramic Studio	
	Arizona Coral Co/PMD Analytical Laboratories	2005	Coral Reef Retailer	
643				
	Dorco Building Supplies	1979-1980	Building Supply Retailer	
	MOTECH	1983-1984		
	A & M Garage	1985	Automobile Repairing	
	Fenderville Resale Cars & Trucks	1986	Automotive Dealership	
	Southwest Restaurant Services	1986-1987	Restaurant Supply	
	Desert Excavating	1987	Excavation Service	
	Bobrick Tool	1986-1987	Tool Supply Retailer	
	American Sprinkler	1986-1987	Sprinkler Services and Installation	
	Specialty Electric/ Specialty Lighting	1988-1995	Electrical and Lighting	
	National Sanitary Supply	1997-2001	Chemical Products	
	Roadrunner Fire & Safety	2003-2004	Fire Safety Supply Retailer	
649				
	Consolidated Electrical Distribution	1979-2006	Electrical Apparatus Supply Retailer	
655				
	Sant's Cabinet Shop	1978-1983	Cabinet Shop	
660				
	Sun Power Plumbing & Solar	1979-1986, 2000	Plumbing and Solar Supply Retailer	

Table 3.1 (continued)
City Directory Results – 501-798 18th Place East

Address	Company	Years	Business Type	Comments
501-798 18th Place East				
660 (continued)				
	Sun Power Realty and Development	1986	Realty and Development	
	Rural Metropolitan Fire Department Ambulance Service	1985-2006	Fire Department Ambulance Service	
	Rural & Metropolitan Corp.	1986-2004	Fire Protection	
	Coronado Home Health Care	1987-1988	Health Care Services*	
	American Homepatient	1997-1998	Retail	
	Coronado Health Services	1993-1995	Health Care Services	
690				
	Sun Power Plumbing	1987-2006	Plumbing	

Table 3.2
City Directory Results – 751-898 19th Street East

Address	Company	Years	Business Type	Comments
751-898 19 th Street East				
840				
	Coca Cola Bottling Company of Yuma	1991-2006	Bottling and Distribution	

Table 3.3
City Directory Results – 501-1098 20th Street East

Address	Company	Years	Business Type	Comments
501-1098 20th Street East				
536				
	Sun Valley Beverage Corp.	1963-2002	Bottling and Distribution	
547				
	Arizona Recreational Vehicle & Mobile Home Supplies & Service	1978	Automotive Repair*	
	Tool-Tech Industries	1979-1980	Tool Supply Retailer	
	Gregco Fabrication	1994	Automotive Fabrication	
	Prevention & Intervention	1995	Safety Awareness	
	Sun Laser	1996-2006	Laser Cartridge Recharging	
555				
	Carpets to Go of Yuma	1986-1987	Carpet Retailer	
	Johnny's Carpet Warehouse	1987-1995	Carpet Retailer	
566				
	United Van Lines	1979-1983	Trucking	
	Horizon Moving & Storage	1979-1983	Moving and Storage	
	United Intermode Inc.	1982		
570				
	Allied Van Line Agency	1979	Moving Company	
	All American Distributing Co	1979	Distribution	
	Durashield Automotive Grooming Center	1984	Automotive Washing	
	Crystal Bottle Water	1993	Bottling and Distribution	
578				
	United Liquor Wholesales Co.	1972-1979	Liquor Wholesale	

Table 3.3 (continued)
City Directory Results – 501-1098 20th Street East

Address	Company	Years	Business Type	Comments
501-1098 20th Street East				
578 (concluded)				
	All American Distributing Co.	1980-1982	Distributing	
	Yuma Chemical Inc.	1984	Chemical Products	
	Pilkington Construction	1990-1998	Construction	
598				
	Gray's Beverage Company	1971-1985	Beverage Distribution	
	Mesa Beverage Company	1986-1988	Beverage Distribution	
	Marcel J Enterprises	1994-2000	Clothing Retailer	
	Sun Valley Beverage Corp	2001-2006	Beverage Distribution*	
610				
	Denny's Tile Company	1977-2006	Tile - Ceramic (Contractors & Dealers)	
	Wade Distributing Inc.	1984	Distributing*	
	C H Enterprises	1988-1989, 1993-2006	Business Loans	
620				
	A A Yuma Recycling	1985-2006	Scrap/ Waste Materials	
625				
	RR Tracks Barkley Seed & Grain Co.	1967-1971	Seed Retailer*	
	Houston Photo Products	1967-1971	Photograph Development & Equipment Supply	
635				
	Dreamland Bedding & Factory Showroom	1991-1993	Bedding Sales & Production	
653				
	The Dancer's Workshop; Houston International LTD	1996-2004	Dance and Photograph Development & Equipment Supply	
	B Motion Industries	1996-1998	Industrial Supply	

Table 3.3 (continued)
City Directory Results – 501-1098 20th Street East

Address	Company	Years	Business Type	Comments
501-1098 20th Street East				
655				
	Houston Photo Products	1968-1985	Photograph Development & Equipment Supply	
	Houston Fearless/ Houston International	1985-2006	Photograph Development & Equipment Supply	
985				
	Desert Best Distributing	2004-2006	Food Industry Supply*	Food Services, Bar Equipment Fixtures & Supplies, Cleaning Systems & Equipment, Janitors Equipment & Supplies Manufacturers
	Pro Tech Automotive & Performance	2004-2006	Automotive Performance Equipment*	
1043				
	Rob's Backhoe Service	2004-2006	Construction*	

Table 3.4
City Directory Results – 701-1098 21st Street East

Address	Company	Years	Business Type	Comments
701-1098 21st Street East				
822				
	21 East Street	1991	Restaurant*	
	Platinum Cabaret	1999-2006	Restaurant*	
841				
	Winnelson Company	1985-1991	Plumbing Supply Retailer*	
	Ram Pipe & Supply	1994-2004	Plumbing Supply Retailer*	
	Geotechnical Testing Services	1999-2000	Technical Testing*	Soils Testing, Concrete Testing, Asphalt Testing, Masonry, Soils Investigations
	Cac Corp Southwest	2005	Metal Works*	Metal Finishers Metal Stamping
928				
	Ram Pipe & Supply	2002-2006	Plumbing Supply Retailer*	
929				
	Yuma Winlectric Company.	2000-2006	Electrical Equipment Retailer*	
	Cac Corp Southwest	2006	Metal Work*	Metal Finishers Metal Stamping
987				
	E L W Repair Services Inc.	1999-2006	Air Condition Repair*	Air conditioning & Refrigeration Service Station Parts & Service Commercial & Residential Sales & Service
	Advanced Carpet & Floor Covering	2000-2006	Floor Covering Retailer*	
	Geotechnical Testing Services	2001	Technical Testing*	Soils Testing, Concrete Testing, Asphalt Testing, Masonry, Soils Investigations
1044				
	Geotechnical Testing Services	2002-2005	Technical Testing*	Soils Testing, Concrete Testing, Asphalt Testing, Masonry, Soils Investigations
	Arciso Engineering Inc.	2004-2005	Engineering Services*	

Table 3.4 (continued)
City Directory Results – 701-1098 21st Street East

Address	Company	Years	Business Type	Comments
701-1098 21st Street East				
1045				
	Limon Construction	1999-2005	Construction*	
	Yuma Pest & Termite System	2000-2003	Pest Control*	
	Glasspro	2000-2005	Glass: Auto Plate & Window*	
	Arizona Speed Worxs	2005	Automotive*	

Table 3.5
City Directory Results – 501-809 22nd Street

Address	Company	Years	Business Type	Comments
501-809 22nd Street				
507				
	Heredia Construction Company	1979-1982	Construction*	
	Rollertyme Family Skating Center	1984-1985	Skating Rink	
	The Hobby House	1989	Model Aircraft Retailer*	
508				
	John's Auto Service	1997-2006	Automotive Repair	
511				
	Jerry & Gayle Trucking	1984	Trucking*	
	Lynco Precision Mach Shop	1993	Machine Shop*	
512				
	Nabob Manufacturing	1993-1997	Recreational Vehicle Dealer*	
	Lynco Precision Machine Shop	1994-2006	Machine Shop*	
	Paintgun Inc.	1995	Paintball Gun Retailer*	
519				
	Yuma Development Company	1952		
520				
	Mousies Sports & Screen Printing	2006	Screen Printing*	
740				
	Dorco Building Supplies	1993-2006	Building Supply Retail*	

Table 3.6
City Directory Results – 1800-2199 Arizona Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Arizona Avenue South				
1821				
	Co-Op Lumber Building Materials	1965-2000	Lumber Retailer	
	United Producers Consumers Cooperation Lumber Building Materials	1971-1999	Lumber Retailer	
	Big Bob's Carpet Outlet	2002-2006	Floor Coverings Retailer*	
	Flooring America	2002-2006	Floor Covering Retailer*	
1845				
	Franklin Uniroyal Auto Home Supply	1967-1999	Retail Automobile Parts	
	Uniroyal Tires Agent	1974-1975	Retail Automobile Parts*	
	Big O Tire Agent	1985-1996	Retail Automobile Parts	
	Franklins Big O Tire Auto Home Supply	1997-1999	Retail Automobile Parts	
	Franklin Tire & Suspension Auto Home Supply	1999-2006	Retail Automobile Parts	
1875				
	Hovatters Auto Doc	1967-1971	Automotive Repair	
	Erwins's Auto Doc	1973-2006	Automotive Repair	
1876				
	A-1 Appliance Service	1959	Appliance Repair*	
	Delf's Electric Motors	1963-1991	Automotive Repair	
	Gordies Speed Center	1971-1972	Retail Automobile Parts*	
1978				
	Gordies Speed Center	1973-2006	Retail Automobile Parts	
	Delf's Electric Motor	1983-1995	Automotive Repair	

Table 3.6 (continued)
City Directory Results – 1800-2199 Arizona Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Arizona Avenue South				
1903				
	McKelvey's Towing	1987-1991	Towing	
1910				
	Engineering Testing Labs	1971	Laboratory	
1920				
	Engineering Testing Labs	1974-1977	Laboratory	
	Witch Craft	1980-1984	Retail	
	Durashield Automotive Grooming Center	1980-2006	Automobile Washing	
	Yuma River Tours	1989-2006	River Tours	
1929				
	Arizona Window Tinting	2003	Automotive Window Tinting*	
	New Broom Carpet Cleaning Company	2003-2005	Carpet Cleaning*	
	Armstrong McCall Beauty Supply	2003-2005	Beauty Supply Retailer*	
	Bozrah Builders Inc.	2003-2006	Building Contractor*	
	House of Vacuums	2006	Retail/Vacuums*	
	New Blind Ultrasonic Cleaning	2006	Window Covering & Cleaning*	
	TNT Window Tinting Inc.	2006	Automotive Window Tinting	
1931				
	Aqua 2000 Purified Water	1997-2006	Bottling and Distribution	
1963				
	Chaparral Veterinary Clinic	1973-2006	Veterinary	
1977				
	Camco Development Company	1977	Development	
1990				
	Performance Plus Motorcycles	1974-1975	Motorcycle Dealer*	

Table 3.6 (concluded)
City Directory Results – 1800-2199 Arizona Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Arizona Avenue South				
1990				
	Performance Plus Motorcycles	1974-1975	Motorcycle Dealer*	
1999				
	Lee's Cycle	1971-1977	Motorcycle Dealer	
	Southwestern Honda	1978-1984	Motorcycle Dealer	
	Sunshine Yamaha Liberty Honda	1985-1995	Motorcycle Dealer	
	Liberty Motor Sports	1985-2006	Motorcycle Dealer	
2000				
	Yuma Honda Cars	1979-1980	Automotive Dealer	
2011				
	Sun Rental & Sales	1979-2006	Heavy Equipment Rental and Sales	
2029				
	Yuma Honda Cars	1982	Automotive Dealer	
	Honda Authorized Sales & Service	1983	Automotive Dealer	
	Karl Moedl Pontiac-Buick Inc.	1984	Automotive Dealer	
	Durashield Automotive Grooming Center	1985-1986	Automobile Washing	
	American Sprinkler	1988-1989	Sprinkler Retailer	
	Bobick Tool	1988-1989	Tool Sales	
	Southwest Restaurant Systems	1988-1989, 1997	Office and Restaurant Equipment	
	Trucks N Things	1988-1989	Automotive Dealer	
	Desert Excavating	1988	Excavating Equipment	
	Kawasaki-Suzuki/Suzuki-Kawasaki	1993-1994	Motorcycle Dealer	

Table 3.6
City Directory Results – 1800-2199 Arizona Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Arizona Avenue South				
2029 (continued)				
	BMK Development	1995-2001	Engineering	
	Kawasaki & Suzuki of Yuma	1995-2001	Motor Sports Sales and Repair	
	Fire Department	2006	Emergency Services	
	Rural Metro Corp.	2006	Emergency Services	
	Ambulance Service Rural Metro	2006	Emergency Services	
2030				
	News Enterprise/Yuma Farmer	1963	Newspaper	
2032				
	Dean's Plumbing	1956-1957	Plumbing Services*	
2035				
	Yuma Directory Company	1963-1971	Publishing	
	Southwest Printers	1963-1976	Publishing	
	News Enterprise/Yuma Farmer	1964-1965	Newspaper	
	University of Arizona Continuing Education Campus	1976-1982	School	
	Sun Graphics Printing Company	1977-1988	Publishing	
2055				
	Sun Printing Company.	1969-1996	Publishing	
	Sun Television	1969-2006	Television	
	Yuma Daily Sun	1969-2006	Newspaper	
	Associated Press	1993-2006	Newspaper	
	Bajo El Sol	1993-2006	Newspaper	
	Yuma's Newspaper	1993-2006	Newspaper	
	Freedom Newspaper	1993-2006	Newspaper	
	Climate Watchers	1999	Newspaper	
	Home Show Magazine	2001-2005	Publishing*	

Table 3.6 (continued)
City Directory Results – 1800-2199 Arizona Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Arizona Avenue South				
2100				
	Roper's Pet Services	1963-1989	Pet Services	
	Valley Photography	1993-2005	Photography	
2115				
	Curtis G Thomas Landscaping & Irrigation Systems	1978-1979	Landscaping	
	Plantasia Florist & Nursery	1978-1983	Nursery	
	Great Western Farm Commodities	1984-1985		
	Sorcerer's Apprentice Stained Glass Works	1984-1990	Stained Glass*	
	The Enchanted Florist	1984-1988	Florist*	
	Total Concept Beauty Center	1986-1990	Beauty Supply Wholesaler*	
	New Dimensions Industries	1986-1987		
	Colorado River Sod Company	1986-1988	Landscaping*	
	Be Sam Kramer Railroad Accident Investigation & Consultant Service Inc.	1986-1987		
	Nail Technician	1987-1988	Nail Salon*	
	L P L Technical Services Inc.	1987-1988		
	Astro Science Inc.	1987-1988		
	Metric Construction Company Inc.	1994	Construction*	
	Yuma's Newspaper	1995	Newspaper	
	Rainbow Carpet Cleaning	1996-1998	Carpet Cleaning*	
	Gragost Cooling	1997	Heating & Plumbing*	
	CC Interlock	2005	Automotive Parts Retailer*	
	Aerotech News	2006	Newspaper*	

Table 3.6 (continued)
City Directory Results – 1800-2199 Arizona Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Arizona Avenue South				
2125				
	Sun Graphics Printing Company	1990-2006	Printing*	
	Western Newspaper	2005	Newspaper*	
	Prescott Newspaper	2005	Newspaper*	
2155				
	Reddy Rents Most Everything	1980-2006	Heavy Equipment Rental and Sales*	

Table 3.7
City Directory Results – 1800-2199 Factor Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Factor Avenue South				
1900				
	Shapiro Company/Shapiro Construction	1973-1986	Construction	
	Yuma Industrial Buildings	1973-1976	Manufacturing*	
	Yuma Desert Manufacturing Corporation	1976	Manufacturing*	
	Lee Bob Plumbing & Heating Inc.	1976	Heating & Plumbing	
	Gray's Trailer Supply	1976	Trailer Supply	
	Genie Company	1976		
	1700 First Office Building	1976-1979		
	Byrd Refrigeration	1976-1978	Plumbing/Heating/AC	
	American Building Maintenance	1976-1984	Building Maintenance	
	Wesam Screen Company	1977-1978	Screen Products	
	Servisoft Soft Water	1977-1983	Water heaters/softeners	
	FMC Corporation-Citrus Machinery Division	1979-1998	Conveyor and Conveyor Equipment Manufacturing	
	Warehouse Stereo Electronic Consultants	1980	Electronic Retailer	
	Chas F Ludwig Electric Inc	1980	Electrical Work	
	Yuma Mortgage Company	1980	Mortgage Company	
	CJ's RV Repair	1982-1983	Repair Shop	
	Desert Vacuum Rebuilding	1983	Vacuum Repair	
	K & R Development/ K & R Plumbing	1983-1984	Plumbing	
	Inman and Morrow Electric	1984	Electrical Service	
	Orbex Resources, Inc.	1984-1985	Chemical and Fertilizer	

Table 3.7 (continued)
City Directory Results – 1800-2199 Factor Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Factor Avenue South				
1900 (continued)				
	Armored Transport Southwest	1984-1986	Armored Transport Company	
	Southwest Janitorial Service, Inc.	1984-1998	Janitorial Services	
	Colorado River Screens & Awnings	1986-1998	Screen & Awning Retail	
	LEPSCO	1993-1994		
	Valley Health Center	1994-1997	Health Care	
	Total Eclipse Window Tinting	1994-1999	Automotive Window Tinting	
	Bjornstad Refrigeration	1994-2006	Plumbing/Heating/AC	
	Sun Laser	1995-1997	Computer Maintenance	
	Tony Vargas - Paint & Body Repair	1997	Automotive Paint & Body Repair	
	Mesa Custom Furniture & Upholstery	1998-2000	Furniture Retailer	
	Dura Kool Screen & Door Inc.	2002	Screen Door Retailer*	
	A V Polishing	2003-2006	Polishing*	
	Novus Auto Glass Repair	2003-2006	Glass: Auto Plate & Window*	
	Ray's Shop	2005	Wood Working Shop*	
1920				
	Yuma Industrial Buildings	1974-1976	Manufacturing*	
	Yuma Desert Manufacturing Corporation	1976	Manufacturing	
	Arizona Auto Body	1977-1978	Automotive Body & Repair	
	Kaman Bearing & Supply Corp	1978	Parts and Bearings Retailer	
	John's Custom Upholstery	1978	Upholstery	
	C Q Communications, Inc.	1979-1990	Communications	
	Culver Refrigeration, Inc.	1980	Plumbing/Heating/ AC	

Table 3.7 (continued)
City Directory Results – 1800-2199 Factor Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Factor Avenue South				
1920 (concluded)				
	Bowling Service of America/Bowling Refrigeration Service	1980-2006	Plumbing/Heating/ AC	
	B & B Motorcycle Service and Accessories	1982	Motorcycle Repair	
	Chas F Ludwig Electric Inc	1982-1983	Electrical Work	
	Communications Management Company	1982-1985; 1991	Communications	
	T G K McCarthy	1984	Construction	
	Black Mountain Communications	1989-1990	Communications	
	Pactel Paging	1993-1995	Communications	
	Air Pro	1993-1995		
	Fischer Communications	1994-1997	Communications	
	Air Touch Paging	1995; 1998-2000	Communications	
	Cactus Flooring Supply	1995-1998	Flooring & Home Furnishing Retailer	
	Allan Fire Protection Systems	1997	Fire Protection Supplies	
	Autophone Communications	1997-1999	Communications	
	Pepilio's Audio & Motorsports	1998	Motorsports Service*	
	Fisher Wireless Services	1998-2001	Communications	
	Yuma Industrial Supplies	1999-2006	Industrial Supply Retailer	
	Verizon Wireless	2001-2006	Communications	
	Gila Electronics Of Yuma Inc	2001-2005	Electronics Retailer*	
	Chemgold Inc.	2002	Metallurgy	
1921				
	Yuma Popcorn Products	1984	Popcorn Products	

Table 3.7 (continued)
City Directory Results – 1800-2199 Factor Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Factor Avenue South				
1925				
	Sitera's Panasonic	1982-1984		
	Sitera's Discount Center / Sitera's Distributing Company	1982-1985	Retail /Distribution	
	Warner Distributing	1984	Distribution	
	Yuma Paper Products & Concessions Supply	1986	Paper products	
	Yuma Popcorn Products	1986-1987	Popcorn Products	
	Janitorial Industrial Maintenance Supply	1990-1991	Janitorial Supplies	
	TNT Bestway Transportation	1991	Trucking	
	Sunbelt Technologies	1991		
	Sen Tech Corp	1994		
	USF Bestway	1997-1998	Trucking	
	Roadway Express	1999	Trucking	
1938				
	Byrd Refrigeration	1979-2006	Plumbing/Heating/ AC	
1940				
	Congrove Construction	1979-1993	Construction	
	Auto After Market	1985	Automotive Supply Retailer	
	Pin Stripe Masters	1986	Automotive Detail Center	
	NoCON Concrete Construction (NoCon, Inc)	1986-1998	Concrete Work	
	Yuma East IGA	1997-1999	Grocery Store	
	Underhill Transfer Company Inc	1995-2006	Warehouse Storage	

Table 3.7 (continued)
City Directory Results – 1800-2199 Factor Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Factor Avenue South				
1965				
	Underhill Transfer Corporation aka Lyon Van Lines-Underhill Transfer Co	1966-1999	Warehouse Storage	
	Aero Mayflower Agency	1966-1967	Trucking*	
	Imperial Truck Lines	1967-1975	Trucking	
	Sitera Distributing Co.	1971	Distributing*	
	Yuma Van & Storage	1973	Transportation and Storage	
	Shippers Imperial Inc.	1976	Shipping/ Distributing	
	North American Van Lines Agency	1977-1998	Moving Company	
	TNT Bestway (Bestway) Transportation	1978-1998	Trucking	
	System 99	1979		
	A A Carpet Mechanics	1979-1982	Carpet Care	
	Yuma Popcorn Products	1984-1989	Popcorn Products	
	Clover Club Foods	1985	Food Distributing Warehouse	
	Werner Distributing	1985-1997	Distributing Company	
	Bekins Moving & Storage Company	1989-1990	Moving Company	
	Econo Care	1990	Automotive Shop	
	Olfactory Corporation (Old Factory Corporation)	1993-2005	Fragrance Manufacturing Industry	
	Roadway Express	1995; 1998- 2002	Trucking	

S.S. Syco - Current
A

Table 3.7 (continued)
City Directory Results – 1800-2199 Factor Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Factor Avenue South				
1970				
	System 99	1982-1984		
	Underhill Transfer	1994	Warehouse Storage	
2020				
	Arizona Periodicals	1991-1997	Periodicals	
	Anderson News Corporation	1997-1999	Newspaper	
	Heating & Cooling Supply	2000-2006	Heating/AC	
2040				
	NOCON Construction Inc	1994	Construction	
	Tom Lemmon Drywall	1994-2006	Drywall Installation	
	Big A Building Materials	1994-2006	Plaster and Drywall Installation	
2075				
	FMC Corporation - Agricultural Chemical Group	1980-1985	Chemical Production	
	Yuma Disposal	1987; 1997-1998	Disposal Facility	
	Arizona Highway Safety Specialists, Inc.	1987; 1997-1998	Roadside Safety Specialist	
	City Auto Body	1990	Automotive Paint & Body Repair	
	P & B Auto Body	1991-1994	Automotive Paint & Body Repair	
	Arizona Wholesale Industrial Supplies	1991-2006	Industrial Supply Retailer	
	Yuma Lumber Company	1996-1997	Lumber Retailer	
	Donald's Air Conditioning & Heating	1999-2006	Heating/AC	

Table 3.7 (continued)
City Directory Results – 1800-2199 Factor Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Factor Avenue South				
2149				
	Trim Line	1986-1987		
	Giffen Service Company	1986-1987		
	Soils Productivity Service	1986-1987		
	Expo Inc.	1986-1987		
	Bio Treatment	1987-1988		
	AAA Taxi Inc.	1989	Taxi Company*	
	A & W Plumbing	1989	Plumbing*	
	Tints N Trim	1989-1994	Automotive Window Tinting*	
	Kinetic Concepts Inc.	1991-1997	Medical Technologies*	
	Custom Ceramic Tile Contractors	1991-2003	Tile - Ceramic (Contractors & Dealers)*	
	Shade Fabrics USA	1991-2003	Manufacturing of Shade Devices*	
	Armandos Upholstery	1993-1995; 2003-2006	Upholstery Retailer*	
	Eagle Snacks Inc.	1995	Snack Delivery*	
	Arizona Carpet Care	1997	Carpet Cleaning*	
	Katz Window Tint	1997-1998	Automotive Glass Tinting*	
	Riddle Elmer	1998-2006	Carpentry*	
	V & M Refrigeration	2003-2005	Refrigeration Repair*	
	Southwest Custom Carpets	2005	Carpet Installation*	
	Allan's Custom Cabinets	2005	Cabinetry*	
	Novis Auto Glass	2006	Glass: Auto Plate & Window*	
	Mad Pro Audio & Window Tinting	2006	Automotive Audio and Tinting*	
	C L Taylor Plumbing	2005-2006	Plumbing*	

Table 3.7 (concluded)
City Directory Results – 1800-2199 Factor Avenue South

Address	Company	Years	Business Type	Comments
1800-2199 Factor Avenue South				
2159				
	H & H Auction	1989-1990	Auction House*	
	Ram Pipe & Supply	1990-1991	Plumbing*	
	The Filter Factory	1992-1993	Filter Manufacturing & Retailer*	
	Custom Ceramic Tile Contractors	1994-2001	Tile - Ceramic (Contractors & Dealers)*	
	Pro Tech Automotive & Performance	2002-2003	Automotive Repair*	
2161				
	Quality Tile Distributors	1989-1993	Tile - Ceramic (Contractors & Dealers)*	
	The Filter Factory	1994-1999	Filter Manufacturing & Retailer*	
	Western Wireless	2003-2004	Communications*	
2165				
	P & F Manufacturing Corp	1987-1988		
	The Filter Factory	1989	Filter Manufacturing & Retailer*	
2166				
	Mohawk Wholesale & Equipment Company Inc.	1982-1989; 1993-1995		
	One Source Distributors	1998-2006	Electrical Equipment Retailer*	

Table 3.8
City Directory Results – 2000-2100 Kennedy Lane South

Address	Company	Years	Business Type	Comments
2000-2100 Kennedy Lane South				
2006				
	Specialty Electric	2002-2006	Electrical Equipment*	
2026				
	Air Central Air Conditioning	2002-2006	Air Conditioning Repair*	
2083				
	Frank & Son Windshields	2005-2006	Glass: Auto Plate & Window*	

Table 3.9
City Directory Results – 1800-2000 Rail Avenue South

Address	Company	Years	Business Type	Comments
1800-2000 Rail Avenue South				
1891				
	Chemical Gold (Henry Ellis)/ Chemgold Inc.	1984-2001	Metallurgy	
	Ed Nance Drywall	2002-2006	Drywall Installation*	
1921				
	Air Pro	1996	Heating /AC*	
	Heating & Cooling Supplies	1997-1999	Heating /AC*	
	JCJ Electric Corp	2000		
1931				
	Westridge Management Company	1996-2006	Real Estate*	
	Hyatt Refrigeration	1996-2006	Heating/Plumbing/ AC*	
1940				
	Bonus Electric	1969	Electrical Repair*	
	C-Thru Awning of Yuma	1978-1981	Awning Retail*	
	Art's Aircraft	1982-1983	Aircraft Services*	
	Trimline of Yuma Company	1985-1987		
	Al's Electric	1988	Electrical Repair	
	A & R Electric	1989	Electrical Repair	
	R T S Electric	1990	Electrical Repair	
	Yuma City Cab/ AAA Taxi Company	1991-1993	Taxi Cab Company	
	Royal Limousine	1991-1993	Transportation	
	Three M's Electric Corp	1996-1999	Electrical Repair	
	Fassett & McLaughlin Auto Repair	1997	Automotive Repair*	
	MS Electric Corp	1997	Electrical Repair*	
	OCR Electric Corp	1999	Electrical Repair*	
	Big Joes Welding	2002-2006	Welding*	
	Kiko Carrascos Shop	2005	Automotive Repair*	

3.2 RCRA NOTIFICATION FILES AND MANIFEST RESULTS

The U.S. EPA Envirofacts Multi-System Queries database listed the following four facilities within the industrial survey boundary as having RCRA ID numbers:

- Sun Printing Company (AZD982472714) located at 2055 Arizona Avenue is listed as an active Conditionally Exempt Small Quantity Generator (CESQG);
- AA Sydcoll LLC DBA Sydcoll (AZR000501510) located at 1925 S. Factor Avenue is listed as an active Small Quantity Generator;
- Hughes Supply Inc. (AZR000503151) located at 928 E. 21st Street is listed as an active CESQG; and
- Houston International (Houston) (AZD983480963) located at 655 E. Factor Avenue is listed as an active CESQG.

The ADEQ RCRA notification file finding aid listed eight facilities within the industrial survey boundary as having notification files. HGL reviewed the notification files and manifests for the eight facilities. Of the eight, three had manifests that listed the COCs at the WQARF site.

- Yuma Daily Sun located at 2055 Arizona Avenue shipped 400 pounds (lbs) of petroleum distillates and PCE to Safety-Kleen Systems, Inc. in Denton, Texas Avenue on July 24, 2003. No U.S. EPA RCRA ID number is listed on the manifest because the generator is a CESQG. It should be noted that the companies listed at 2055 Arizona Avenue are part of the Freedom Newspapers of Southwestern Arizona, Inc. There are a number of auxiliary publication companies operating at this address.
- Freedom Newspapers located at 2055 Arizona Avenue shipped 385 lbs of petroleum distillates and PCE to Safety-Kleen Systems Inc. in Denton, Texas on June 16, 2005. No U.S. EPA RCRA ID number is listed on the manifest because the generator is a CESQG.
- On behalf of the ADEQ, 2,400 lbs of cyanide contaminated soil was shipped from 655 E. 20th Street, the location of Houston, to 21st Century EMI in Fernley, Nevada on March 2, 2005. No U.S. EPA RCRA ID number is listed on the manifest because the generator is a CESQG.

3.3 RCRA CASE FILES, COMPLIANCE LOG, AND ARCHIVED FILE RESULTS

Houston was the only company within the industrial survey boundary that was listed as having a file within the ADEQ RCRA open and closed case files, RCRA compliance log, and RCRA archived file finding aids. Houston has a RCRA closed case file that contains correspondence, sampling plans, and inspection reports.

3.4 CERCLA RESULTS

The U.S. EPA CERCLIS database did not list any CERCLA sites within or near the industrial survey boundary.

3.5 PA/SI RESULTS

The ADEQ PA/SI finding aids listed two facilities within the industrial survey boundary as having PA/SI files, Houston and Yuma Recycling. For each of the two facilities, the ADEQ PA/SI file contained preliminary assessments reports, preliminary assessment questionnaires, and ADEQ data summary and evaluation forms. A confidential PA/SI folder was also reviewed for each facility. The confidential folders contained preliminary assessment review forms and associated score sheets and hazardous ranking system (HRS) rationale.

Of the two facilities, only Houston, located at 655 E. 20th Street, used the COCs in its operations. The majority of documents located in the PA/SI file were initially located in the WQARF files. Refer to Section 3.9 below for a summary of the WQARF documents reviewed for Houston.

3.6 UST/LUST RESULTS

The ADEQ UST/LUST online databases listed seven UST facilities within the industrial survey boundary. None of the UST facilities stored the COCs, but one facility had two waste oil USTs. Erwin's Auto Doc Auto Repair (0-001954) located at 1875 S. Arizona Avenue is listed as having two 500-gallon waste oil USTs. The USTs were removed and the site received closure on September 1, 1986.

3.7 ADEQ WATER QUALITY RESULTS

The ADEQ water quality database did not list any water quality applications or permits for businesses within the industrial survey boundary.

3.8 REGISTERED DRYWELL RESULTS

The ADEQ drywell database did not list any drywells within the industrial survey boundary.

3.9 WQARF FILE RESULTS

The ADEQ's Hummingbird database listed Houston as the only company within the industrial survey boundary with WQARF files. Houston began operating at 655 E. Factor Avenue in 1965. Prior to that time, the land was vacant. Houston operated as a motion picture laboratory as well as a manufacturing facility for the manufacture of photographic film and paper processing equipment.

Houston's motion picture laboratory used varying amounts of photographic chemicals and water in the development of film. The wastewater from the film development contained cyanide compounds and silver. The wastewater was treated to recover silver and then disposed of in a number ways. Some of the wastewater was discharged into a 1,000-gallon underground concrete sump. When the sump was full, wastewater was discharged onto the ground to the east of the site. Wastewater was also used to water the plants in the landscaped areas in front of the building. On the southwest portion of the property, wastewater was discharged to the ground by a sprinkler system and then later to a septic tank.

From approximately 1975 to 1991, Houston used PCE in a 50-gallon vapor degreaser to clean parts. In 1978, an employee drained approximately 15-20 gallons of PCE from the degreaser into the 1,000-gallon concrete sump.

**3.10 HAZARDOUS WASTE BOX STORAGE, HAZARDOUS MATERIALS
INCIDENT LOGBOOK, AND HAZARDOUS WASTE INSPECTIONS
DATABASE RESULTS**

Houston was the only company within the industrial survey boundary that was listed in the ADEQ Hazardous Waste Box Storage, Hazardous Materials Incident Logbook, and Hazardous Waste Inspection databases. Houston had two files within the ADEQ Hazardous Waste Box Storage files. The files contained records related to inspections conducted on October 9, 1990, June 24, 1993, March 31, 1994 and November 9, 2004.

**APPENDIX A
INFORMATION SOURCES**

**DRAFT INDUSTRIAL SURVEY
20th STREET AND FACTOR AVENUE
WQARF REGISTRY SITE
YUMA, ARIZONA**

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APPENDIX A INFORMATION SOURCES

DRAFT INDUSTRIAL SURVEY 20th STREET AND FACTOR AVENUE WQARF REGISTRY SITE YUMA, ARIZONA

1.0 INTRODUCTION

This appendix lists the sources contacted by HGL for information during the course of conducting the industrial survey for the 20th and Factor Avenue WQARF Registry site. Sources include various federal and state government entities as well as other public entities.

2.0 INFORMATION SOURCES

2.1 U.S. GOVERNMENT

U.S. Environmental Protection Agency

<http://www.epa.gov>

http://www.epa.gov/enviro/html/multisystem_query_java.html

HGL queried the Envirofacts Multi-System Queries database encompassing RCRA, Comprehensive Environmental Response, Compensation, and Liability Information System, and Toxic Release Inventory System for information on facilities within the industrial survey boundary.

2.2 STATE OF ARIZONA

Arizona Department of Environmental Quality

1110 West Washington Street

Phoenix, Arizona 85007

Records Management Center

(602) 771-4335

<http://azdeq.gov/databases>

HGL reviewed the drywell, hazardous waste inspections, and underground storage tank and leaking underground storage tank online databases to identify information on facilities within the industrial survey boundary. Electronic and paper copies of hazardous waste box storage, preliminary assessment/site investigation, RCRA compliance log, RCRA open and closed case files, RCRA archived, and RCRA notification files and the water quality database provided by the ADEQ were also reviewed.

TFHGLC000044

Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

Ms. Lara provided HGL access to the ADEQ Hummingbird and Records Search Utility databases to determine what, if any, files were available for facilities located within the boundary of the industrial survey.

Arizona State Capitol Library
1700 West Washington Street
Phoenix, AZ 85007
(602) 542-4159

HGL visited the Arizona State Capitol Library and reviewed Arizona business and industrial directories in order to identify the business categories of companies located within the industrial survey boundary.

2.3 YUMA COUNTY

Yuma County Department of Development Services
2351 W. 26th Street
Yuma, Arizona 85364
(928) 817-5000
<http://www.co.yuma.az.us/dds/contactus.htm>

HGL conducted a search of the Yuma County Geographic Information Systems website to obtain ownership and parcel information.

Yuma County Environmental Programs Office
2351 W. 26th Street
Yuma, Arizona 85364
(928) 817-5139

HGL contacted the Yuma County Environmental Programs Office in regards to hazardous waste spills and investigations. It was suggested that the City of Yuma Fire Department be contacted for this information.

2.4 CITY OF PHOENIX

Phoenix Burton Barr Public Library
1221 North Central Avenue
Phoenix, Arizona 85012
(602) 262-4636

HGL visited the Phoenix Public Library and reviewed Arizona business and industrial directories in order to identify the business categories of companies located within the industrial survey boundary.

2.5 CITY OF YUMA

Yuma Public Library
350 S Third Ave
Yuma, AZ 85364

HGL visited the Yuma Public Library and reviewed Arizona business and industrial directories to identify the business categories of companies located within the industrial survey boundary.

Yuma Fire Department
One City Plaza
Yuma, AZ 85364

HGL visited the Yuma Fire Department located at City Hall and reviewed property reports for businesses located within the industrial survey boundary.

2.6 OTHER PUBLIC SOURCES

Arizona State University
Hayden Library
P.O. Box 871006
Tempe, Arizona 85287
(480) 965-4932

HGL visited the Hayden Library and reviewed its collection of city of Yuma directories. ASU staff photocopied pertinent pages from the city directories.

Rural/Metro Corporation
660 E. 18th Place
Yuma, Arizona 85365
(928) 782-4757

HGL contacted the Rural/Metro Corporation in regards to incident files for properties outside of the Yuma city limits.

Internet
www.google.com

HGL performed various searches on www.google.com in order to identify the business types of companies located in the industrial survey boundary.



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- R – Recovery and refining of silver to help your business off-set the cost of photo waste management.
- E – Environmentally sound and licensed hauling and treatment of your photo-waste residues & solutions.



CRE was founded in 1980 as a full service silver recovery/silver refining company serving the Southern California imaging community. Our primary customers include hospitals, medical centers, and doctors offices as well as other clinics performing radiology services (X-Rays). CRE offers refining services to these facilities for the extraction of silver from their scrap file X-Rays. Following recovery, the client is paid for the resultant net silver content, after refining charges. CRE refines over 15,000,000 pounds of scrap X-Rays for silver recovery, annually. CRE's principle location is in Burbank CA, which serves as the Company headquarters and local service arm for Southern, CA. CRE also maintains sales/service offices in Phoenix, AZ and San Jose, CA. Our silver refinery occupies 5 acres in Mojave, CA.

Future Expansion:

The Health Insurance Portability and Accountability Act(HIPAA) requires that CRE provide document security and destruction for the X-Rays themselves as well as the associated protective file envelopes and reports. These requirements have led to CRE entering the paper shredding and baling system. In the spring of 2010 CRE will be expanding our services into the records document destruction arena (beginning with medical records since we currently service the medical field in our silver recovery capacity).

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Phone # (818)843-2811
Fax # (818) 843-2862
E-mail: info@creweb.com

Northern California:
Commodity Resource & Environmental, Inc.
493 Reynolds Circle
San Jose, CA 95112

Toll Free # (800) 949-2811
Phone # (408) 501-0691
Fax # (408) 436-5578

Arizona / Nevada:
Commodity Resource & Environmental, Inc.
301 North 37th Drive #104
Phoenix, Arizona 85009

Phone # (602) 352-1911
Fax # (602) 352-0354

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Silver Recovery Cartridge Mail-in Refining Program

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However, many municipalities have severe limits for the allowable discharge of silver effluents even in minute amounts. In California and the Western United States, CRE offers hauling of photo chemicals. Some of our customers recover the silver on-site and then have us haul the low value effluents. Others simply have us haul their photo effluents with no pre-treatment.

CRE is a licensed transporter of hazardous waste and maintains an authorized facility for the off-site treatment and disposal of photochemical waste.

CRE also supplies transportation and field services to the graphic arts industry for “Ink & Solvent Waste Disposal”.



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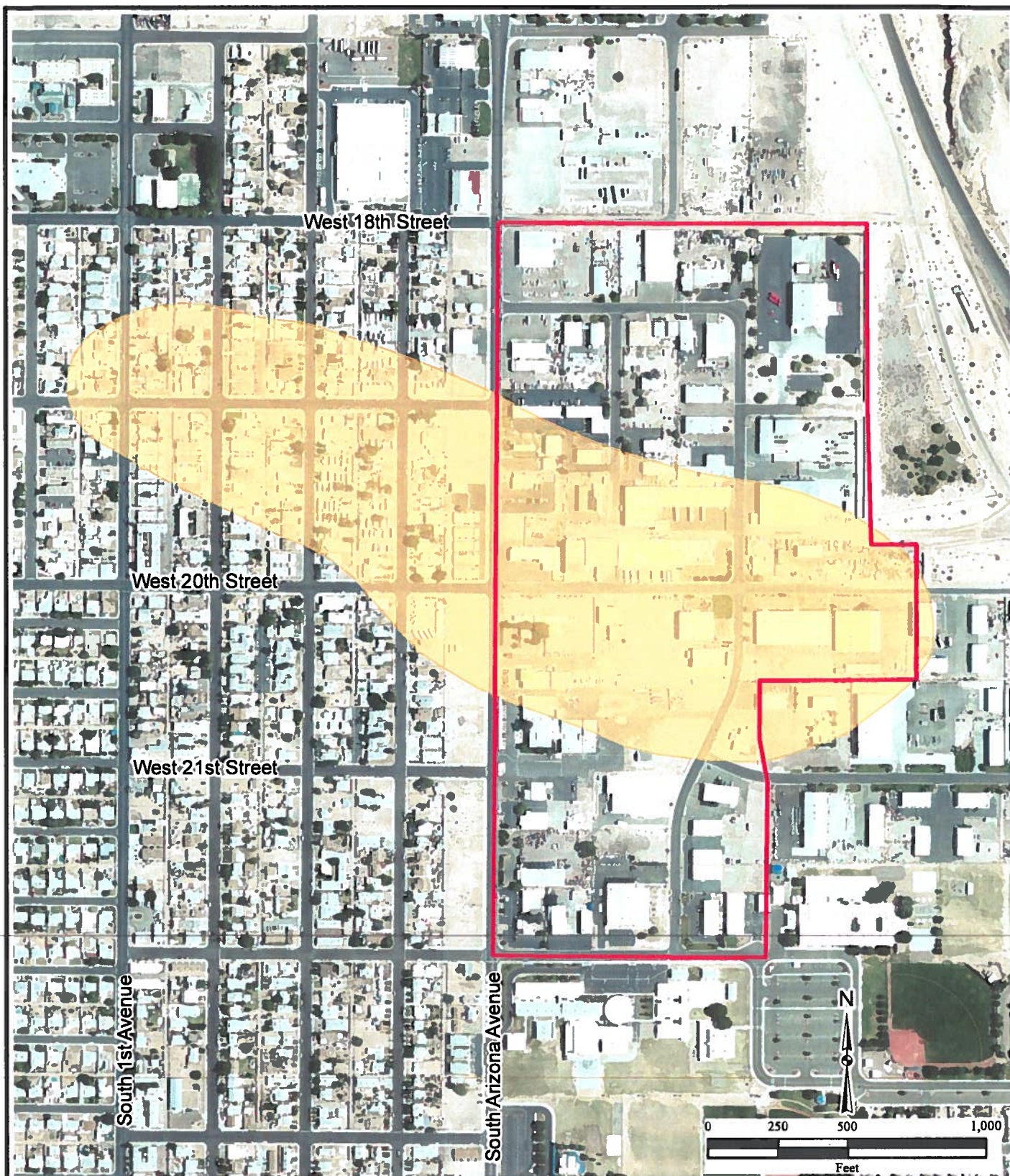
Enclosure 1
Source Documents Index
Draft Final Letter Report - Remedial Investigation
20th Street and Factor Avenue WQARF Registry Site

DOCUMENT BATES RANGE	DATE	PAGES	TITLE	AUTHOR/AUTHORORG	RECIPIENT/RECIPIENTORG
TFDEQP000001 TFDEQP000004	06/24/1993	4	Houston Photo Lab Hazardous Waste Inspection Report	Arizona Department of Environmental Quality (ADEQ)	Houston Photo Lab
TFDEQP000005 TFDEQP000023	08/25/1994	19	Preliminary Assessment/Yuma Recycling Center	Hessler, Mary E./ADEQ	20 th and Factor WQARF Site File
TFDEQP000024 TFDEQP000038	10/02/1996	15	Draft Revised Eligibility and Evaluation Form	ADEQ	20 th and Factor WQARF Site File
TFDEQP000039 TFDEQP000136	06/08/1999	98	Abbreviated Preliminary Assessment Report - Houston International	Hessler, Mary E. and Goodwin, Scott D./ADEQ	20 th and Factor WQARF Site File
TFDEQP000137 TFDEQP000145	01/01/2011	9	20 th Street and Factor Avenue - Water Quality Assurance Revolving Fund (WQARF) Registry Site (site)	ADEQ	
TFDEQP000146 TFDEQP000167	06/27/2003	22	Groundwater Monitoring Well Installation and Sampling Summary Report for 2002 - 20 th and Factor WQARF Site, Yuma, Arizona	Geotrans, Inc.	ADEQ
TFDEQP000168 TFDEQP000576	07/20/2010	409	Soil Vapor Investigation and Well Installation and Sampling September 2008 through April 2010	Geotrans, Inc.	ADEQ
TFDEQP000577 TFDEQP000583	04/08/2002	7	ADEQ Interoffice Memorandum-Rationale for an Early Response Action at the 20 th Street and Factor WQARF Site	Goodwin Scott D./ADEQ	20 th and Factor WQARF Site File
TFDEQP000584 TFDEQP000588	04/06/1994	5	Preliminary Assessment Questionnaire	Houston International Ltd.	ADEQ
TFDEQP000589 TFDEQP000590	02/06/1969	2	Warranty Deed	Industrial Properties, Inc.	Houston Photo Products, Inc.
TFDEQP000591 TFDEQP000636	04/12/1990	46	Environmental Property Evaluation-Houston International Ltd.	Western Technologies, Inc.	Houston International Ltd.
TFHGLC000001 TFHGLC000046	06/29/2007	46	Draft Industrial Survey 20 th Street and Factor Avenue WQARF Registry Site, Yuma, Arizona	HydroGeoLogic, Inc.	ADEQ
TFINET000001 TFINET000005	02/13/2012	5	Commodity Resource & Environmental, Inc. (CRE) Company Information	CRE	

ENCLOSURE 2

**FIGURE 1
SITE LOCATION**

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\\Gst-srv-01\hglgis\20th Street Factor\
Multiple Sites Installation Wide\RI\
(01)Site Location Map.mxd
2/21/2012 TJ
Source: ADEQ, 2011;
ESRI Online Bing Maps

Legend

- Industrial Survey Boundary
- Estimated Plume Boundary
as of July 2011

Figure 1
20th Street and
Factor Avenue
WQARF Registry Site

